

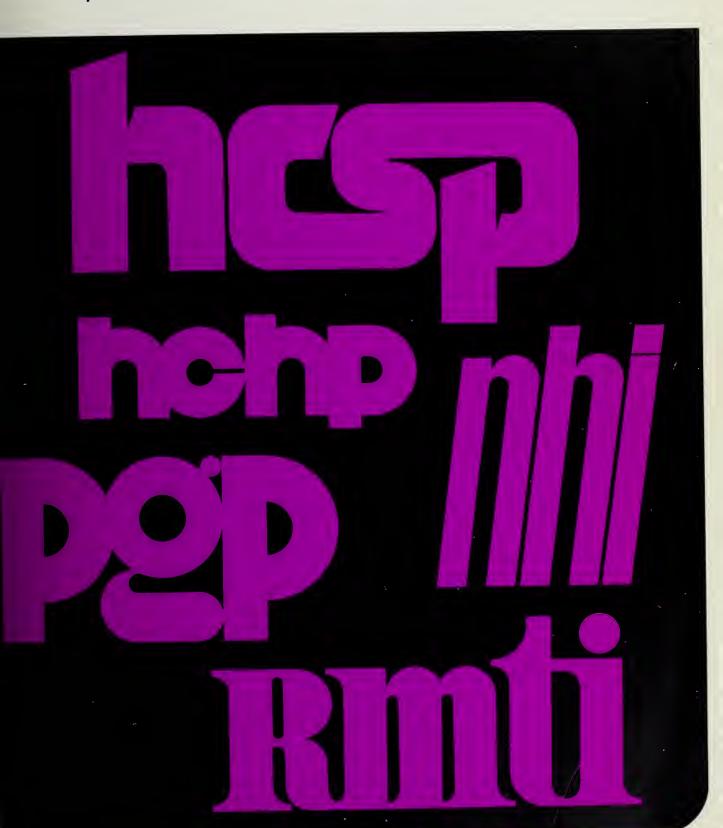


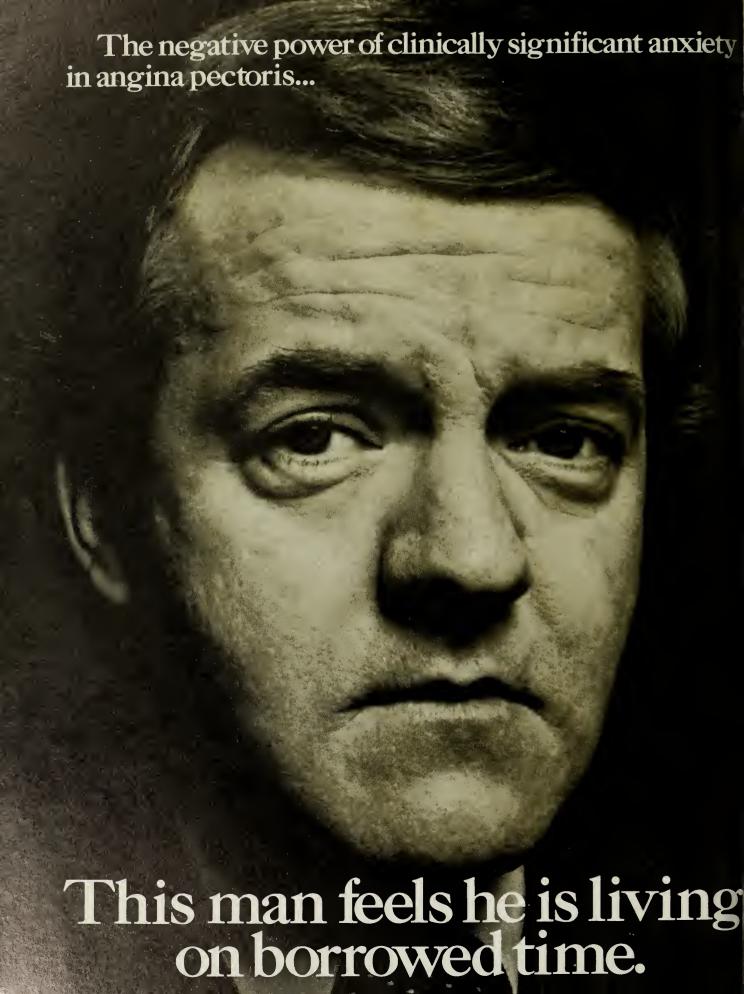
HARVARD MEDICAL ALUMNI BULLETIN

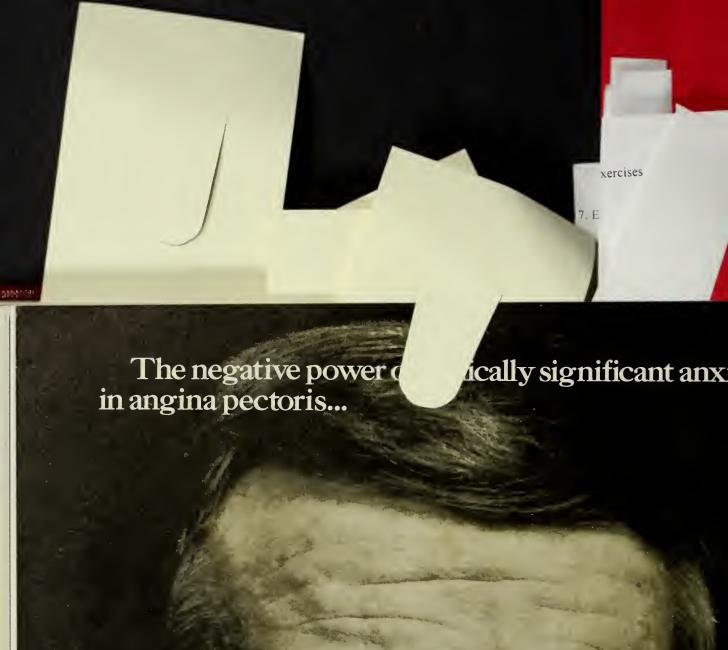
September/October 1972

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This man feels he is livin on borrowed time.

During anginal attacks, patients may suffer intense apprehension. More frequently, however, they experience a continuing sense of less severe but nonetheless disproportionate anxiety.

Reduction of such clinically significant anxiety is important, since undue emotional stress may precipitate further anginal episodes.

Adjunctive Librium (chlordiazepoxide HCl) may be especially suitable for relief of clinically significant anxiety and emotional tension in anginal patients because of its generally prompt therapeutic effectiveness and wide margin of safety. In a recent double-blind randomized study,* Librium (chlordiazepoxide HCl) was administered for relief of moderate anxiety in 20 anginal patients seen in office practice over a 20-week period. Symptoms of emotional distress related to anxiety were rated at base-line, one week, two weeks and monthly thereafter. Relief was obtained notably early in therapy. The clinical results demonstrated that Librium offers the coronary patient an antianxiety drug that, in the author's opinion, is both effective and safe. In general use, the most common side effects reported have been drowsiness, ataxia and confusion, particularly in the elderly and debilitated. (See summary of prescribing information.) Librium (chlordiazepoxide HCl) is used concomitantly with certain specific medications of other classes of drugs, such as cardiac glycosides, diuretics and antihypertensive agents, whenever anxiety is clinically significant. The drug should be discontinued after anxiety has been reduced to appropriate levels.

The positive power of adjunctive

Librium

(chlordiazepoxide HCl)

10-mg, 25-mg capsules up to 100 mg daily

for moderate to severe anxiety accompanying angina pectoris Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of anxiety and tension occurring alone or accompanying various disease states.

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards.

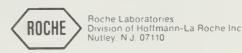
Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

Supplied: Librium® Capsules containing 5 mg, 10 mg or 25 mg chlordiazepoxide HCl. Libritabs® Tablets containing 5 mg, 10 mg or 25 mg chlordiazepoxide.

*Levine, S.: "Angina Pectoris and Emotional Overlay," Scientific Exhibit presented at the Annual Meeting of the Maine Medical Association, Kennebunkport, Me., June 13-15, 1971.

A copy of the Levine study may be obtained from your Roche representative.



EIGHTH ANNUAL TOUR PROGRAM—1972

This unique program of tours is offered to alumni of Harvard, Yale, Princeton, M.I.T., Cornell, Dartmouth, Univ. of Pennsylvania and certain other distinguished universities and to members of their families. The tours are based on special reduced air fares which offer savings of hundreds of dollars on air travel. These special fares, which apply to regular jet flights of the major scheduled airlines but which are usually available only to groups and in conjunction with a qualified tour, are as much as \$500 less than the regular air fare. Special rates have also been obtained from hotels and sightseeing companies.

The tour program covers areas where those who might otherwise prefer to travel independently will find it advantageous to travel with a group. The itineraries have been carefully constructed to combine the freedom of individual travel with the convenience and savings of group travel. There is an avoidance of regimentation and an emphasis on leisure time, while a comprehensive program of sightseeing ensures a visit to all major points of interest. Hotel reservations are made as much as a year and a half in advance to ensure the finest in accommodations.

EAST AFRICA 22 DAYS \$1699

A luxury "safari" to the great national parks and game reserves of Uganda, Kenya and Tanzania. The carefully planned itinerary offers an exciting combination of East Africa's spectacular wildlife and breathtaking natural scenery: great herds of elephant and a launch trip through hippo and crocodile in MURCHISON FALLS NATIONAL PARK; multitudes of lion and other plains game in the famed SERENGETI PLAINS and the MASAI-MARA RESERVE; the spectacular concentration of wildlife in the NGORON-GORO CRATER; tree-climbing lions around the shores of LAKE MANYARA; the AMBOSELI RESERVE, where big game can be photographed against the towering backdrop of snow-clad Mt. Kilimanjaro; and the majestic wilds of TSAVO PARK, famed for its elephant and lion as well as its unusual Mzima Springs. Also included are a cruise on LAKE VICTORIA in Uganda and visits to the fascinating capital cities of KAMPALA and NAI-ROBI. The altitude in East Africa provides an unusually stimulating climate, with bright days and crisp evenings (frequently around a crackling log fire), and the tour follows a realistic pace which ensures a full appreciation of the attractions visited. Total cost is \$1699 from New York. Optional extensions are available to the famed VICTORIA FALLS, on the mighty Zambezi River between Zambia and Rhodesia, and to the historical attractions of ETHIOPIA. Departures in January, February, March, May, June, July, August, September, October, November and December 1972 (\$25 additional for departures in June, July, August).



THE ORIENT 30 DAYS \$1759

1972 marks the eighth consecutive year of operation for this outstanding tour, which offers the greatest attractions of the Orient at a sensible and realistic pace. Twelve days are devoted to the beauty of JAPAN, visiting the ancient "classical" city of KYOTO, the modern capital of TOKYO, and the lovely FUJI-HAKONE NA-TIONAL PARK, with excursions to ancient NARA, the magnificent medieval shrine at NIKKO, and the giant Daibutsu at KAMAKURA. Visits are also made to BANGKOK, with its glittering temples and palaces; the fabled island of BALI, considered one of the most beautiful spots on earth; the ancient temples near JOGJA-KARTA in central Java; the mountain-circled port of HONG KONG, with its free port shopping; and the cosmopolitan metropolis of SINGAPORE, known as the "cross-roads of the East." Tour dates in-clude outstanding seasonal attractions in Japan, such as the spring cherry blossoms, the beautiful autumn leaves, and some of the greatest annual festivals in the Far East. Total cost is \$1759 from California, \$1965 from Chicago, and \$2034 from New York, with special rates from other cities. Departures in March, April, June, July, September and October 1972.

AEGEAN ADVENTURE 22 DAYS \$1329

This original itinerary explores in depth the magnificent scenic, cultural and historic attractions of Greece, the Aegean, and Asia Minor—not only the major cities but also the less accessible sites of ancient cities which have figured so prominently in the history of western civilization, complemented by a luxurious cruise to the beautiful islands of the Aegean Sea. Rarely has such an exciting collection of names and places been assembled in a single itinerary—the classical city of ATHENS; the Byzantine and Ottoman splendor of ISTANBUL; the site of the oracle at DELPHI; the sanctuary and stadium at OLYMPIA, where the Olympic Games were first begun; the palace of Agamemnon at MYCENAE; the ruins of ancient TROY; the citadel of PERGA-

MUM; the marble city of EPHESUS; the ruins of SARDIS in Lydia, where the royal mint of the wealthy Croesus has recently been unearthed; as well as CORINTH, EPIDAUROS, IZMIR (Smyrna) the BOSPORUS and DARDENELLES. The cruise through the beautiful waters of the Aegean will visit such famous islands as CRETE with the Palace of Knossos; RHODES, noted for its great Crusader castles; the windmills of picturesque MYKONOS; the sacred island of DELOS; and the charming islands of PATMOS and HYDRA. Total cost is \$1329 from New York. Departures in April, May, July, August, September and October, 1972.

MOGHUL ADVENTURE 29 DAYS \$1725

An unusual opportunity to view the outstanding attractions of India and the splendors of ancient Persia, together with the once-forbidden mountain kingdom of Nepal. Here is truly an exciting adventure: India's ancient mounuments in DELHI; the fabled beauty of KASHMIR amid the snow-clad Himalayas; the holy city of BANARAS on the sacred River Ganges; the exotic temples of KHAJ-URAHO; renowned AGRA, with the Taj Mahal and other celebrated monuments of the Moghul period such as the Agra Fort and the fabulous deserted city of Fatehpur Sikri; the walled "pink city" of JAIPUR, with an elephant ride at the Amber Fort; the unique and beautiful "lake city" of UDAIPUR; a thrilling flight into the Himalayas to KATHMANDU, capital of NEPAL, where ancient palaces and temples abound in a land still relatively untouched by modern civilization. In PERSIA (Iran), the visit will include the great 5th century B.C. capital of Darius and Xerxes at PERSEPOLIS; the fabled Persian Renaissance city of ISFA-HAN, with its palaces, gardens, bazaar and famous tiled mosques; and the modern capital of TEHERAN. Outstanding accommodations include hotels that once were palaces of Maharajas. Total cost is \$1725 from New York. Departures in January, February, August, October and November 1972.

Rates include Jet Air, Deluxe Hotels, Most Meals, Sightseeing, Transfers, Tips and Taxes. Individual brochures on each tour are available.

For Full

ALUMNI FLIGHTS ABROAD

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> The opinions of contributors to the Bulletin do not necessarily reflect those of the Editorial Staff.

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Perry J. Culver '41 Director of Alumni Relations

OVERVIEW

Ryan to Succeed Reid as Ladd Professor

Kenneth J. Ryan '52 will become the second incumbent of the Kate Macy Ladd Professorship of Obstetrics and Gynecology on January 1, 1973. He will also serve as head of Harvard's department of obstetries and gynecology and as chief-ofstaff at Boston Hospital for Women.

Presently professor of reproductive biology and chairman of the department of obstetrics and gynecology at the University of California, San Diego, School of Medicine, Dr. Ryan has made significant findings relative to the biochemical and physiological roles of estrogenic hormones in reproduction.

His research began in 1948 when he was a first-year student at HMS and joined a research group in the Huntington Laboratories at Massachusctts General Hospital to study the metabolism of the steroidal estrogens. After graduation and two years of clinical training at MGH, he returned to the Laboratories and worked under Nobel Laureate Dr. Fritz Lipmann and later, Dr. Lewis Engel.

During 1956-57 Dr. Ryan was a resident in medicine at Columbia Presbyterian Medical Center and then entered the obstetrics-gynecology program at Boston Lying-in Hospital. He served as director of the Fearing Research Laboratory at HMS in 1960-61. Moving to Case Western Reserve University School of Medicine, he was named the Arthur H. Hill Professor of Obstetrics and Gynccology in 1961, a position he held until 1968 when he became chairman of the department of reproductive biology. In 1969 he was promoted to coordinator of biological sciences. Dr. Ryan joined the faculty of medicine at the University of California in 1970.

A brilliant investigator, Dr. Ryan, working alone or with his colleagues, has demonstrated the mechanisms

for the biosynthesis of estrogens and progesterone by the human placenta; detailed pathways for hormone formation by the human ovary; the first example of light-reversed carbon monoxide inhibition of a mixed function oxidase system and the comparative aspects of hormone production by mammalian species in general. Recently, he and his colleagues have embarked on a new field of investigation that relates the role of steroid hormones to the control of gonadotropin secretions and sexual behavior. His work in this field is expected to have profound impact on endocrinological and reproductive biology.

Dr. Ryan received the Schering Award in 1951, the Soma Weiss and Borden Award from HMS in 1952, the Ernst Oppenheimer Award of the Endocrine Society in 1964, and the Weinstein Award of the United Cerebral Palsy Society in 1971. He is a member of the American College of Obstetrics and Gynecology, American Gynecological Society, American Society of Biological Chemists, American Society for Clinical Investigation, Society for Gynecological Investigation, and the Institute of Medicine, National Academy of Sciences. He is a member of the National Advisory Council, USPHS, Institute of Child Health and Development, and formerly was a member of the President's Committee on Mental Retardation.

The Kate Macy Ladd Professorship was established in 1964 with a gift from the Josiah Macy, Jr., Foundation of New York. The Chair honors the late Kate Macy Ladd who, in 1930, established the Foundation as a memorial to her late father. Since its inception, the Foundation has been a leader in efforts to promote medical interest in obstetrics and gynecology. The first incumbent of the Chair was Duncan E. Reid, M.D., now Ladd Professor, emeritus. Dr. Reid is a member of the faculty at the University of Arizona Medical School in Tucson and on the staff of the University Hospital there.

Frei Named First Physician-in-Chief at CCRF

A leading clinician and investigator in the field of cancer in children and adults. Emil Frei, 111. M.D., has been appointed professor of medicine at Harvard. He will serve simultaneously in the newly created position of physician-inchief at the Children's Cancer Research Foundation. Dr. Frei will be based in the Jimmy Fund Building and the Foundation's new Charles A. Dana Cancer Center, which will be connected to the Jimmy Fund Building.

Prior to his Harvard appointment, Dr. Frei was professor of medicine at the University of Texas M.D. Anderson Hospital and Tumor Institute, associate director (clinical research) and head of the University's department of developmental therapeutics. From 1955 to 1965, he was associated with the

National Cancer Institute and at the time of his departure, was associate scientific director for experimental therapeutics.

Dr. Frei's primary clinical and rescarch activities have related to the chemotherapy of cancer. Under the guidance of Dr. Gordon Zubrod, he initiated the first quantitative clinical investigations in cancer chemotherapy. His work, both direct and supervisory, has related to drug development; the selection of new agents; new treatment programs for clinical trial; and the conduct of the clinical trial, including clinical pharmacologic, cytokinetic, munosuppression, and toxicologic studies, in addition to evaluation of anti-tumor effects. Major emphasis in these studies has been given to the application of scientific leads to therapeutic investigations in cancer and the construction of clinical trials within the context of optimal, total patient care, with quantitative evaluation of the drug effect on the host as well as the tumor.

Findings of clinical importance have included the identification of 13 new agents with significant antitumor effect; the demonstration that the dose and schedule of drug administration may substantially modify the therapeutic index; and the demonstration that appropriate combinations of chemotherapeutic agents may enhance response. Some of the larger studies have involved more than one institution, and Dr. Frei served as chairman of the Acute Leukemia Cooperative Group B from 1955 to 1963, and of the Southwest Cancer Chemotherapy Study Group from 1966 to the present. These studies have resulted in

marked improvement in the complete remission rate, the duration of complete remission and the survival in childhood leukemia, and a substantial improvement in adult leukemia. Similar progress has been achieved, under Dr. Frei's supervision, in the treatment of disseminated lymphoma.

Dr. Frei is a former president of the American Society of Clinical Oncology and immediate past president of the American Association for Cancer Research. He is a Fellow of the American College of Physicians, and a member of the American Cancer Association, American Society of Hematology, and American Society for Clinical Investigation.

He received his M.D. degree in 1948 from Yale University School of Medicine.

Memorandum of Understanding

Harvard University (through the Harvard Medical School), five of its affiliated teaching hospitals, and The Children's Cancer Research Foundation (including its Charles A. Dana Cancer Center now under construction) have signed a Memorandum of Understanding outlining the principles requisite to the development of sound interrelationships among these institutions in matters of clinical oncology.

The teaching hospitals involved are: Beth Israel Hospital: Boston Hospital for Women: Children's Hospital Medical Center; New England Deaconess Hospital: and Peter Bent Brigham Hospital.

The Memorandum relates to staff appointments, provision of patient care, and educational and research programs in clinical oncology at the Harvard Medical School, The Children's Cancer Research Foundation, and the nearby signatory hospitals.

Based on principles of sound regional planning, the Memorandum is viewed as a precedent-setting model for the development of broadly based cooperative efforts in a spe-

cific field between a University and institutions closely related to it but not a part of its basic administrative structure, and among several indcpendent medical care institutions which recognize their increasing interdependence in today's complex technological and economic environments. It places both obligations and constraints upon all of the participating institutions to assure the development of collaborative efforts in patient care, research, and teaching in clinical oncology. Within this specific area the Memorandum recognizes the right of each institution to have the independence to make its own way with imagination and intellectual vigor while simultaneously cooperating with its neighbors in the intellectual and practical issues of patient care.

Sidney Farber '27. president and director of The Children's Cancer Research Foundation and prime mover in the establishment of its Charles A. Dana Cancer Center, hailed the agreement as a "major step forward" in the development of a true regional resource in cancer for patients in New England.

Specifically noted in the Memorandum is a provision that physicians with patient care responsibilities appointed to the staff of The Children's Cancer Research Foundation shall also be appointed to the medical staff of at least one of the participating hospitals. Most of the physicians, though not necessarily all, will also hold appointments in the Faculty of Medicine at Harvard. Some of the Center's physicians may hold academic appointments elsewhere in New England.

The Memorandum also calls for the creation of an Interhospital Clinical Oncology Committee composed of members of the staff of The Children's Cancer Research Foundation, the participating hospitals, and the Joint Center for Radiation Therapy. The latter, another cooperative venture of the Harvard Medical School and its surrounding hospitals, was organized in 1968 to provide a strengthened service in radiation therapy, nuclear medicine, and research in radiation and oncology. The Interhospital Committee will provide the basis for development of mutual responsibility between and among the institutions involved. Chairman of the Committee will be the physician-in-chief of The Children's Cancer Research Foundation, Dr. Emil Frei, III, who is also professor of medicine at HMS.

The Committee will have responsibility for the

Review and evaluation of all proposed clinical appointments in clinical oncology at the Foundation, the hospitals, and at the Joint Center, with the understanding that the institutions will make no such appointments without approval of the Committee.

Periodic review and approval of all Hospital-Foundation programs in research, education or care in clinical oncology.

Review and approval of any major new or expanded programs in clinical oncology by any of the participating institutions — the hospitals, the Foundation, or the Joint Center.

Development of mutually acceptable criteria for the referral, interchange and care of patients and the coordination of ancillary services (such as social services, psychological support and fiscal arrangements) for the patients moving between the Foundation and the Hospitals, with the goal of avoiding duplication of services.

Development of agreements on deployment of House Staff and students, and on fiscal and other administrative matters related to clinical oncology at any of these institutions.

Signatories to the Mcmorandum of Understanding are: Harvard University, Derek C. Bok; The Children's Cancer Research Foundation, Sidney Farber '27; Beth Israel Hospital, Sidney Stoneman; Boston Hospital for Women, Robert G. Weise; Children's Hospital Medical Center, William W. Wolbach; New England Deaconess Hospital, Laurens MacLure; Peter Bent Brigham Hospital, Sims McGrath; and Harvard Medical School, Robert H. Ebert, M.D.

Seven Honored with Emeritus Status

Seven members of the Faculty of Medicine at Harvard have been accorded the honor of being named professor emeritus. They are:

Derek E. Denny-Brown, M.D., **Ph.D.**, professor of neurology, HMS; and chief, section of neurophysiology and associate director, New England Regional Primate Research Center, named professor of neurology, emeritus. Recognized as one of the world's leading neurological scientists, his work encompasses five major areas; physiology of neuromotor apparatus, clinical neurology, pathological physiology of the cerebral circulation, the physiology and pathology of motor disorders, and regeneration of muscle and nervc.

Dr. Denny-Brown's affiliation with HMS dates from 1939, although he did not assume his responsibilities as professor of neurology and director of the Neurological Unit at Boston City Hospital until 1941. During 1939-41 hc was on leave of absence, serving as a Major in the British Royal Army Medical Corps. In 1946 he became the third Harvard neurologist to be appointed James Jackson Putnam Professor of Neurology. He also served the Medical School as chairman of the exccutive committee of the department of neurology and psychiatry from 1954 to 1966.

A world renowned scientist, Dr. Denny-Brown has received awards from over six countries, including being decorated by the President of Peru in 1963. Among the many honors bestowed upon him in the U.S., is the gold Woltmann Memorial percussion hammer he received when he was Eaton Memorial Lecturer at the Mayo Clinic in 1965, an award hitherto given only to Mayo Clinic alumni.

Robert E. Gross '31, William E. Ladd Professor of Child Surgery, HMS; and chief, Cardiac Program, Children's Hospital Medical Center, named William E. Ladd Professor of Child Surgery, emeritus. Dr. Gross is noted for his momentous contributions to cardiovascular surgery and particularly for his pioneer work dealing with congenital cardiovascular abnormalities. In 1938 he performed the first successful surgery on the patent ductus arteriosus.

Dr. Gross has been a member of the Faculty since 1934 and has held positions on the senior staffs of the surgical services of the Peter Bent Brigham Hospital and Children's Hospital Medical Center since 1939. In 1947 he was appointed Ladd Professor and simultaneously was made surgeon-in-chief at CHMC. He served in that position until 1966 when he was named chief of the Cardiac Program where he headed a team of scientists conducting an aggressive attack on heart diseases in children.

The recipient of many honors, he received the Albert Lasker Award in 1954 in recognition of his contribution to cardiovascular knowledge. In 1959 he again received the Lasker Award, the only physician to have been awarded the honor twice.

David Hurwitz '29, clinical professor of medicine, HMS; and chief, Diabetes Clinic, Boston City Hospital, named clinical professor of medicine, emeritus. The major portion of Dr. Hurwitz' clinical practice and research has been devoted to the care of diabetic patients and to research in diabetes and other metabolic diseases in the Thorndike Memorial Laboratory at Boston City Hospital.

For two decades, he headed the Diabetes Clinic at BCH, the largest in the city of Boston. For a similar period of time, he was chief of the division of medicine at Mt. Auburn Hospital and in 1963 was named director of medical education there.

Held in great admiration by the medical staff at BCH, Dr. Hurwitz served as president-elect and president of the staff at the hospital in 1966 and 1967 respectively. He joined the teaching staff of HMS in 1931 as a research fellow in obstetrics, and was appointed clinical professor of medicine in 1967. He served for several years on the School's admission committee.

Duncan E. Reid, M.D., William Lambert Richardson Professor of Obstetrics, Kate Macy Ladd Professor of Obstetrics and Gynecology, and chairman of the department of obstetrics and gynecology, HMS; and chief of staff at Boston Hospital for Women (Lying-in and Parkway Divisions) named William Lambert Richardson Professor of Obstetrics and Kate Macy Ladd Professor of Obstetrics and Gynecology, emeritus.

As a teacher, clinician, and inves-

tigator, Dr. Reid has made contributions to the care of women in pregnancy and on the biology of reproduction, upgrading obstetrical care by taking it far beyond the realm of midwifcry. He recently compiled his knowledge and experience from his more than 25 years at HMS and the Boston Lying-in Hospital in A Textbook of Obstetrics. The text, dcsigned for students in advanced obstetrical training, has been hailed by his colleagues the world over for its scientific basis. Now being revised under joint authorship, the text will re-emphasize this approach as indicated by a new title, The Principles and Management of Human Reproduction. Its dedication to "those who work together toward achievement of the initial right of man to be born without handicap and the privilege of woman to bear without injury" is a statement of Dr. Reid's own professional goals.

Dr. Reid came to Boston in 1933 to serve in the obstetrics program at Boston Lying-in Hospital and joined the staff of HMS in 1935 as a research fellow. In 1947, he was named the Richardson Professor and head of the department of obstetrics at HMS. In 1959, the departments of obstetrics and gynecology merged, and Dr. Reid was named chairman. From 1947-59 he served as obstetrician-in-chief at the Lying-in and was named chief of staff in 1959. He became the first Ladd Professor in 1964.

George W. Thorn, M.D., Hersey Professor of the Theory and Practice of Physic, and Samuel A. Levine Professor of Medicine, HMS; head of the department of medicine at the Peter Bent Brigham Hospital and physician-in-chief, PBBH, named Hersey Professor of the Theory and Practice of Physic, and Samuel A. Levine Professor of Medicine, emeritus.

An internationally respected endocrinologist, Dr. Thorn is the epitome of the medical triad, a teacher, clinician, and researcher. In 1934 he came to HMS as a Rockefeller Fellow in Medicine. Shortly thereafter, he accepted an associate professor-

ship of medicine at Johns Hopkins School of Medicine. Returning to HMS in 1942, he was appointed to the oldest and most distinguished chair in American medicine. Simultaneously, he became physician-inchief at Peter Bent Brigham Hospital. In 1968, with his appointment as Samuel A. Levine Professor of Medicine, he became the occupant of two endowed chairs.

Perhaps his greatest contribution is his research on cortisone and ACTH and the development of its use in the treatment of numerous diseases. He was among the first to show that complete adrenalectomy could be performed in man, and he initiated the earliest work in human kidney transplantation at PBBH.

Dr. Thorn will continue his activities as director of medical research at the Howard Hughes Medical Institute, as an editor of *Principles of Internal Medicine*, and as a member of the executive committee of the corporation of Massachusetts Institute of Technology. He became editor-in-chief of the MEDCOM Faculty of Medicine in July.

Carl W. Walter '32, clinical professor of surgery, HMS; and surgeon, Peter Bent Brigham Hospital, named clinical professor of surgery, emeritus. During his long and productive career, Dr. Walter's chief concern has been hospital safety. His efforts to make hospitals free from infection, throughout his 40vear association with HMS and PBBH, have made him an internationally known expert on asepsis. His contributions to medical and surgical literature number in excess of 160 and are primarily devoted to that subject.

In 1937 he was named instructor in surgery at HMS and rose in rank to become clinical professor in 1962. He was appointed surgeon at the Brigham in 1951. Since 1955 he has been director of the Environmental Sepsis Laboratory at PBBH and in 1963 was named to the administrative board of the New England Regional Primate Research Center and the Faculty Standing Committee on Patents. He has been

chairman of the Committee on Hospital Safety for the Medical Area since 1969.

Dr. Walter was the founder of the Brigham Hospital's Blood Bank, which was established through his efforts in 1937 and at that time it became the blood exchange center for Boston hospitals. The worth of such an organization was demonstrated when it quickly filled the call for blood to aid victims of Pearl Harbor. The American National Red Cross Blood Donor Program for World War II had its start at the PBBH in 1941. Dr. Walter, who was responsible for the development of the now widely accepted plastic system for the collection, storage, processing, and infusing of blood, also pioneered in the study of survival of red cells in patients after transfusions.

Hc will continue to serve the Medical School as Chairman of the Harvard Medical Alumni Fund.

Claude E. Welch '32, clinical professor of surgery, HMS; and assistant in surgery, Massachusetts General Hospital, named clinical professor of surgery, emeritus. A recognized authority on gastrointestinal disease and cancer, Dr. Welch has also distinguished himself in the field of abdominal surgery.

He became an instructor in surgery in 1937 and was named clinical professor in 1964. He was appointed assistant surgeon at MGH in 1937 and visiting surgeon in 1953. From 1957-66 he was chief of the Tumor Clinic at the Hospital.

Dr. Welch is a former president of the Massachusetts Medical Society; the New England Cancer Society; the Society for Surgery of the Alimentary Tract; and the Boston Surgical Society. He is a Regent of the American College of Surgeons. Since 1969 he has been chairman of the Committee on Publications of the New England Journal of Medicine. Dr. Welch was a member of the editorial board of Surgery and has edited the first five volumes of Advances in Surgery.

He is president-elect of the Harvard Medical Alumni Association.

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Klingenstein Fund for Epilepsy Research

A \$125,000 grant from the Esther A. and Joseph Klingenstein Fund of New York has established the Klingenstein Fund for Research in Epilepsy at Harvard Medical School. This is one of the Fund's first gifts in their new program of research and treatment of cpilepsy, and Mr. John Klingenstein, secretary of the Fund, said it is the director's hope that "our resources can be used to improve the condition of the patient now afflicted with cpilepsy and to contribute to the development of new knowledge and understanding that may ultimately lead to prevention and curc."

In announcing the establishment

of the Fund, Dean Robert H. Ebert commended the members of the Klingenstein family for their generous support of research on a condition about which there are "great gaps in our information . . . and limitations in our capacity to deal with it." At the same time, Dean Ebert announced that Marc A. Dichter, M.D., Ph.D., will organize a laboratory at the Beth Israel Hospital for research in the nervous system with special emphasis on epilepsy, major support for which will come from the Klingenstein Fund.

Dr. Dichter is a former clinical associate in the Electroencephalograph Laboratory of the National Institute of Neurological Discases and Stroke, and currently is instructor in medicine at HMS. He received the M.D. and Ph.D. degrees in 1969 from New York University. While there, he studied the role of excitation and inhibition in the origin and spread of epileptic discharges and was particularly interested in factors which tended to restrain the propagation of these abnormalities. At the National Institutes of Health, Dr. Dichter studied anatomical and clinical aspects of cultured cells from chick spinal cord and dorsal root ganglia.

Another portion of the Klingenstein Fund will be used in support of basic research in neurobiology by David H. Hubel, M.D., George Packer Berry Professor of Neurobiology at HMS.

The community based Roxbury Medical Technical Institute, Inc. (RMTI) brought its financial problems to a group of Harvard Medical School alumni and staff on July 19th, at a meeting sponsored by their Scholarship Committee co-chairmen, George S. Richardson '46 and William D. Sohier, Jr. '46. Dr. Richardson, host of the meeting explained that it was his hope that, upon being given an understanding and awareness of RMTI's program, colleagues and philanthropic individuals might be persuaded to assist in the fund raising efforts. Dr. Richardson introduced Mr. Octavius Rowe, executive administrator of RMTI, who explained the program and its goals to the gathering.

RMTI, Inc. was begun to assist in alleviating the shortage of physicians and other health personnel, paying particular attention to drawing more black and Spanish speaking students into those professions. The Institute is committed to providing necessary educational and motivational support to minority students, beginning in grade three and extending through professional training.

Roxbury Medical Technical Institute, Inc.



Located at 60 Vernon Street, Roxbury, in severely cramped quarters, RMTI provides support to over 255 students, ages eight through 18. Basic education courses, directed to grades three through seven include basic arithmetic, first aid, health education, reading improvement, Spanish, and field trips to health service delivery agencies in the area. The medical science division works with grades seven through nine, and consists of courses in biology, human anatomy, history, nutrition, physics, Spanish, mathematics, special seminars, and field trips. The third academic division, for grades nine through 12, consists of career counselling and special tutoring in more specialized fields of study. All academic work is offered during after school hours.

Mr. Rowe explained the second and more subtle role of the program as that of providing disadvantaged youth with black and other minority role models who can influence them to pursue health careers. When one studies the patterns of success, Mr. Rowe stated, it is clear that most professionals were inspired, by one or a group of people, to train for health careers. It is important, he went on, that these children see that there is somewhere to go, someplace they are needed, when they complete their education. They need role models they can relate to and understand. Broadening the students' world and increasing their career mobility can be done by providing wider and more varied experiences. The child and his family must build great confidence, selfrespect, and dignity. In order to do this, a child must see people who have already succeeded.

RMTI's faculty consists of positive role models; instructors who can readily identify with young people. Health professionals, educators, medical students, community residents, and pre-med students provide a stimulating and positive image of health care fields and encourage meaningful and personal relationships. It is through this personalized delivery of education that a child's

image of himself is strengthened. RMTI assists in the total physical, social, emotional, and intellectual development of the students.

An allied role of RMTI is providing its students with comprehensive health care using the facilities of Roxbury Dental Medical Group (RDMG) (see HMAB, March/April, 1972). This association serves two basic functions: each student receives health care services, and this, in turn, encourages him to add to his store of proper medical information. Under the careful tutelage of RDMG's staff, students learn about preventive medicine, social hygiene, and various public health programs.

The counselling and scholarship committee will follow each student through his training. It is hoped that the students' interests in health careers will continue through graduate training, and if so, the Institute will provide assistance to them as they move through various schools and colleges. Both Mr. Rowe and Dr. Richardson expressed the hope that assistance would take the form of educational and financial support.

For further information about the Roxbury Medical Technical Institute, Inc., please contact Dr. George S. Richardson, Massachusetts General Hospital, Fruit Street, Boston, Massachusetts, 02114; 726-3003.

REMINISCENCES

The *Bulletin* apologizes for an error of authorship in the July/August Reminiscences. The "488" poem was written by Russell Carpenter who was at the time, professor of zoology at Tufts University and lecturer in anatomy of the eye in the Harvard course.

Brookline March 9, 1924

Dear Father:

On the morning of Feb. 25th at the Brigham Hospital I had the unusual privilege of observing an operation in an embryonic field of surgery. I thought you might be interested to hear something about it. Dr. Cutler used for the first time the new instrument, which Dr. Beck, who is living with us, designed for the excision of stenotic heart valves.

The rationale for this treatments seems to lie in the realm of hypothesis. The theory is that conversion of a mitral stenosis into a simple mitral regurgitation by enlarging the valve orifice should allow the heart to work more efficiently and thus improve the patient's symptoms.

The patient whom Dr. Cutler operated upon was a girl of 18 with definite signs and symptoms of mitral stenosis. She was unable to engage in any sort of activity which required bodily effort. Walking around the house would tire her, so that she was forced to sit down after the least exertion, and she became very dyspnoeic.

The operation, of course, had a touch of the dramatic in it for the observers as well as for the operators. An incision was made in the midline over the full length of the sternum and continued to a point about one and a half inches below the ensiform. The sternum was cut through in the mid-line by means of an electric circular saw, and the two halves were drawn apart and held so with a fixed retractor. The pleurae were carefully dissected off the surface of the pericardium. The fibrous layer of the pericardium was cut through in the mid-line by means of scissors and retracted to each side. Clear,

straw-colored fluid gushed forth from the pericardial cavity with each contraction of the heart. A rather small heart was exposed, contracting regularly at a somewhat increased rate. I observed no irregularities of rhythm throughout the operation, although a doctor near me in the stands said that he noted a few extrasystoles. According to Beck, the human heart stands more handling than that of dogs.

A small stitch was taken in the myocardium near the apex for the purpose of holding the heart up. Two parallel stitches were taken in the wall of the left ventricle on its left side just above the apex, on either side of the site of the future incision. Beck held the two threads and Dr. Cutler made an incision about one inch long between the two stitches through the ventricular wall down to the endocardium. Blood from the heart wall spurted forth during three or four contractions, but Beck quickly drew the threads over the incision in opposite directions, closing off the cut, and bleeding stopped. Then Dr. Cutler took the new instrument. and after the threads were drawn apart, so as to allow access to the incised opening, he inserted the conical tip of the instrument, forced it through the endocardium and up into the ventricular cavity until he felt that the tip was inserted in the narrowed mitral valve orifice. He then forced the head of the instrument through the thickened valve and "took a bite out of it," withdrawing the instrument with its contained piece of valve immediately from the heart. The threads were drawn across the incision again. The whole maneuver was very rapid and there was no bleeding.

Three sutures were taken to close the gap in the heart wall. The pericardial cavity was sponged out with physiologic salt solution, the fibrous pericardium was drawn together and sutured, the two halves of the ternum were replaced and brought together with wire, and the fascia and skin were closed over it.

The duration of the operation was about one hour and 25 minutes.

The patient had a good pulse and blood pressure and excellent color at the end of the operation. She came out of the anesthetic all right, was in good condition for two days, but her temperature gradually increased and signs of pneumonia appeared. She held out until the morning of Sunday, March second, when she died at 7:30 A.M. Both lungs were found to be pneumonic; the lower left lobe was as firm as a liver, according to Beck. The heart incision had healed perfectly and the mitral valve orifice had been enlarged, so that the end of a thumb could be inserted into it.

It was a most unfortunate outcome, as the case had presented such a favorable aspect all through, especially as regards the surgical technique. Post-operative pneumonia seems to be the bug-bear of all surgery.

The work is continuing in the laboratory and guarded hopes are expressed for the future.

As ever,

Alex

The above Reminiscence was written by the late Alexander T. Bunts '24.

Editorials

Presenting Harvard News

"A city set upon a hill cannot be hid" (Matt. 5:13). It was this text which John Winthrop took soon after 1630 when he delivered his famous charge to his fellow Bostonians, fully believing that "the eies of the world" would be upon the success or failure of their experiment in the New World. A different history would have permitted us to smile at Winthrop's delusion of grandeur. But the Boston experiment was followed by others, in wave upon wave: the experiment of Harvard, the experiment of independence, the experiment of constitutional government "under liberty" — eventually, all of the components of the American dream.

Harvard Alumni know that it is no delusion that the eyes of the world are upon HMS. As a result, readers of this issue will not be surprised to learn that the Harvard Community Health Plan (HCHP) is being viewed as an important testing ground for the concept of the Health Maintenance Organization (HMO). This level of importance justifies a full report, and we present it herewith.

We believe that interest will be considerably heightened by the fact that the material appears in the form of an argument in which the possibility is entertained that Harvard's leadership may actually be exerted in the wrong direction.

We of the *Bulletin* are rather delighted with this controversial setting. We believe that much of Harvard's news would gain if the bones of controversy were more often exposed. Our faith in Harvard is such that we do not think that she will be hurt by such revelation. We suspect, on the contrary, that the friends of HMS will be stronger in their devotion to the School to the extent that they understand that leadership cannot avoid controversy.

Even the critics grant that Harvard's HMO works: "By all accounts HCHP provides excellent comprehensive care to its subscribers." Just to end with a Biblical quotation one might say that, at the very worst, "A living dog is better than a dead lion" (Eccles. 9:4).

GSR

HMOs:

A Critical Appraisal of the Harvard Community Health Plan

by Howard Waitzkin '72 and Alana S. Cohen, M.A.

Among its many troubles, the United States faces a crisis in health care. Medical services are maldistributed; physicians and facilities are concentrated in a small number of urban centers; there are few personnel in rural districts and low income areas of cities; patients who gain access to doctors often find exorbitant costs and fragmented care.

Proposals for solving these problems center on two innovations: national health insurance (NHI) and health maintenance organizations (HMOs). Many variations on these ideas have emerged but they can be summarized simply.

National health insurance is a method of financing medical care, with the federal government insuring payment for health services. Low income patients presumably would not face prohibitive financial barriers in seeking care. NHI would be administered either by the insurance industry, which would receive government subsidies for low income patients, or by an independent federal bureaucracy. NHI does not imply a reorganization of the present health system. Financial incentives might encourage physicians to serve in areas that lack sufficient medical personnel and facilities. But NHI does not guarantee that patients in medically deprived areas will enjoy greater access to care.

It is worthwhile, then, to compare NHI with the principle of a national health service (NHS). Under an NHS, physicians are employees of the government and can be assigned to areas of need, often on a rotating basis. In many countries where

health facilities were maldistributed prior to an NHS, the availability of medical services has been increased. The establishment of an NHS implies a reorganization of the health system, rather than simple changes in financing.

Another distinction between NHI and NHS concerns the issue of voluntarism. NHI preserves the voluntary nature of medical practice; a doctor remains free to determine the location and type of practice he prefers. NHI guarantees he will be paid for the services he provides to patients who otherwise could not afford his services. NHI does not, however, require physicians to practicc in areas of shortage. Despite the incentives that some NHI proposals include, nothing insures the movement of physicians to those areas where their services are most severely needed. NHI may equalize patients' ability to pay, but will not affect the inaccessibility of medical services for much of the population.

Perhaps because of its voluntary nature, NHI is a popular concept in the medical profession. Even conservative elements including the AMA support NHI proposals. This response is predictable because NHI would assure payment for doctors without requiring them to change the day-to-day conditions of their practice.

However, the idea of an NHS has not yet received serious consideration in the United States. Although it does not solve all problems, an NHS does reduce distributional incqualities through compulsory measures by which physicians are required to serve in deprived areas for limited periods of time.

Will voluntary rather than compulsory measures improve the present distributional crisis in health care, if NHI is enacted? There is no evidence that NHI alone will solve the distributional problem.

Some proponents of NHI realize it will not rectify distributional inequalities. Rashi Fein, professor of the economics of medicine in the Center for Community Health and Medical Care, HMS, has argued in behalf of NHI because it will create such a crisis, the public will demand needed changes in the organization of services.

I think that it's healthier to have the queues, to have people frustrated [under NHI], so that we see that there are people who are not getting medical care because of a shortage of physicians, or because of lack of organization. I don't want to cover it up. . . . If we institute a national health insurance system, there will be strains, there will be pressures. But I do not think that the American system will legislate changes first, and I am willing to push for national insurance because I think that this will force us to address the problem of change.1

NHI would, according to Dr. Fein, lead to another crisis in health care, rather than resolving the present one.

The country must eventually face the question of whether voluntary measures will redistribute health services. In general, the architects of NHI have not seriously considered this issue. If NHI is enacted, the probability is high that millions of dollars will be wasted because of the mistaken impression that changes in financing imply changes in organizational structure. More money for health care, for many Americans, will not mean better health care.

Health maintenance organizations, in addition to NHI, figure prominently in current health planning. An HMO is a group of physicians and other health personnel who organize themselves into a working unit, often serving a specific population. Many

HMOs receive fees on a prepaid basis, in which ease the HMO may be referred to as a prepaid group practice (PGP). Patients who obtain medical care from a prepaid practice generally pay an annual "capitation" fee which covers all services and hospitalization they may require.

Assuming that socialized medicine will not gain acceptance in the United States, health planners have turned to HMOs as a way to reform the organization of medical services. Again, no proposal calls for the mandatory establishment of HMOs throughout the country; doctors will retain autonomy in deciding whether to enter group practice.

Although HMOs will remain voluntary, most plans for NHI include provisions for their support. HMOs funded by capitation payments from the federal government comprise a basic part of the Nixon Administration's proposals for improved health care. Other plans for NHI, such as Senator Edward Kennedy's and Representative Margaret Griffith's bills, encourage the establishment of HMOs by providing special financial incentives.

Following the prototype of the Kaiser-Permanente system in California and the Health Insurance Plan (HIP) of New York, a number of medical schools recently have become sponsors of HMOs. In several cases, commercial insurance companies and Blue Cross have assumed active roles by underwriting portions of the risks incurred by these HMOs or by offering their subscribers the option of joining HMOs.

In our opinion, enthusiasm for HMOs supported by NHI has helped divert attention from the fact that NHI will not solve the distributional crisis in American medicine. Furthermore, the same enthusiasm has helped prevent serious consideration of the compulsory measures which have led to significant improvements in many countries.

This paper is a critical appraisal of a single HMO, the Harvard Community Health Plan (HCHP). The

Plan is the first large PGP sponsored by a major American medical school. HCHP began to serve subscribers in 1969; projected enrollment is 30,-000. By all accounts, HCHP provides excellent, comprehensive care to its subscribers. The high value that HCHP places on comprehensive and preventive care creates nearly universal admiration among its patients and observers. Both within and beyond the Harvard medical community, HCHP is being viewed as a model HMO as it will be struetured in the future. Because of HCHP's importance as a national model, it merits eritical attention.

Acknowledging the quality of medical care HCHP provides and the good intentions of HCHP personnel, we focus primarily on two issues: I) the interests of the institutions participating in HCHP, and 2) the involvement of low income subscribers. The paper is based on two years of participant observation of HCHP's activities in a low income community by one author (A.S.C.) and a series of interviews with HCHP officials as well as an analysis of institutional documents by the other author (H.W.).

INSTITUTIONAL INTERESTS

In recent years, the power structure of American medicine has shifted away from the conservative American Medical Association toward liberal medical schools and teaching hospitals. Since the early 1960's, planners associated with large medical centers have acted as outspoken advocates for increased government programs and spending for health care. Many commentators (most notably, the Health Poliey Advisory Center of New York) have analyzed this growing concentration of power in medicine and have concluded that the expanding "medical empires" associated with medical schools represent a major impediment to the decentralization of services to areas which lack adequate personnel and facilities.

Nevertheless, medical empires are in trouble. Until the middle

1960's the federal government and private philanthropies were providing lucrative support for basic science research. Research grants formed a major source of revenues which helped medical centers expand. About five years ago, largely because of financial pressures imposed by the Vietnam War and inflation, research money began to dry up. Many people felt that available funds should be used in practical applications of medical knowledge rather than in further basic research.

The response of major health institutions was swift and dramatie. Many medical schools established departments of community medicine. Others inaugurated new health programs in nearby ghettoes whose severe health problems had gone unnoticed for years. Still others started outreach projects in rural areas. Often these new programs overlapped and competed for patients and funds. Regional planning and control remained negligible.

During the last three years, as the concept of HMOs has become more popular among government granting agencies, medical schools have jumped on the HMO bandwagon. First at Harvard, then at Yale, Johns Hopkins, and Washington University in St. Louis, HMOs have come into existence, attracting significant outside funding. Many more medical schools have followed suit. J. V. Maloney, past president of the American Society of University Surgeons, commented caustically on the medical schools' newly founded enthusiasm for HMOs.

It is curious that the university whose principle mission is teaching clinical medicine in a scholarly environment should suddenly become interested in the delivery of health care. The answer seems to be that given by Willy Sutton, the often apprehended bank robber, when asked why he insisted on rob-

Dr. Waitzkin is an intern in medicine and a postdoctoral fellow in sociology at Stanford University. Miss Cohen is associated with MIT.

bing banks: 'Cause that's where the money is!' The enthusiasm for prepaid health schemes at several universities surveyed was related to the severity of their fiscal crisis and shortage of clinical material.²

Are HMOs potential money makers for university medical centers? The experience of the first university affiliated HMO, the HCHP, is typical. The origins of Harvard's involvement in HMOs are complex. Public statements usually have emphasized a concern for improving the quality of medical care in the United States. By establishing a model HMO, Harvard would influence the future direction of health services throughout the country. A second publicly stated goal of Harvard's participation is the improvement of medical education. Finally, an HMO sponsored by Harvard would provide an opportunity for health services research.

But Harvard has suffered cutbacks in federal and philanthropic funding for basic science research. Figure I shows the changes in governmental and philanthropic receipts of which HMS availed itself from 1965 to 1970. Following a steady increase in funding, government grants began to fall off in 1968. Annual increases in federal grants since that time have been less than \$1 million per year. Some Harvard teaching hospitals have experienced actual reductions in federal research funding. In other cases, inflationary increases in costs have meant that smaller increments in federal support were experienced as net decreases.

Harvard's success in attracting funds for its HMO is also shown in Figure I. At the same time federal funding for research has decelerated, government and philanthropic funding of Harvard's HMO has increased.

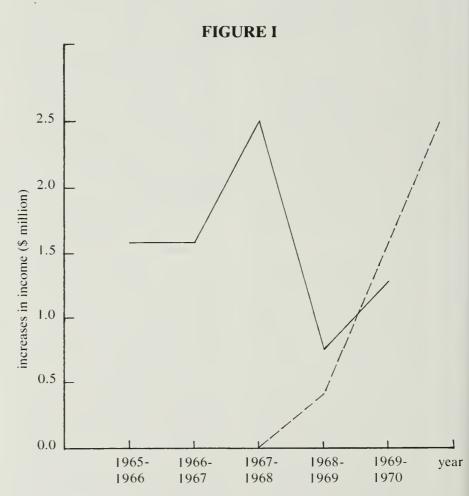
The development of alternative modes of financing, of course, does not imply that Harvard could correct all its financial problems through an HMO. Most monies received are restricted to HMO activities; Harvard could not transfer funds designated for its HMO to cover expenses

for basic research. In addition, unexpectedly high costs have created financial difficulties within HCHP during its first two years of operation. However, during a period of declining revenue for research, entering the HMO field helps Harvard and similar schools preserve their overall financial strength.

What low income patients have to offer. University affiliated HMOs like HCHP are now trying to extend care to low income patients. Again, there is more than altruism behind such moves; providing HMO services to low income people can become a money making venture too.

Doubtless, HCHP officials were motivated by a genuine concern about improving health care for low income persons in the Boston area. There was already much evidence documenting the relative unavailability of adequate services in low income communities. More specifically, Harvard previously had made little effort to improve the quality of care delivered to residents in the Mission Hill-Parker Hill community near the Medical School. The inclusion of low income patients in the HCHP would provide an opportunity to offer direct medical care to a previously deprived population.

In addition, the enrollment of low income subscribers would likely result in certain financial advantages for HCHP. The largest grants from outside agencies to HCHP support



Government and philanthropic receipts of Harvard Medical School (———) versus Harvard Community Health Plan (----), by year.

Sources: Financial Report to the Board of Overseers of Harvard College and Harvard Community Health Plan.

services and facilities to this population. HCHP receives approximately \$1 million annually for a total projected low income enrollment of 6,000.

Two groups of low income patients have received HCHP coverage. For those whose income qualified them for public welfare benefits, the Massachusetts Department of Public Welfare agreed to give Medicaid payments on a prepaid basis. A significant part of the community which HCHP selected, however, is composed of families whose incomes are slightly higher than welfare requirements. The U.S. Public Health Service (PHS) awarded a supplemental grant which provided the difference between HCHP premiums and the amount those families could afford to pay, computed according to after taxes income.

The per-person capitation fees which HCHP receives for low income subscribers are greater than those for higher income patients covered by commercial insurance carriers. As shown in Table 1, the initial monthly capitation for adults was \$5 to \$6 higher in the low income groups; the comparable figure for children was \$3 to \$4. HCHP administrators explain these higher capitations on the basis that the low income groups have a greater risk of illness or injury. A small amount of data about the utilization patterns of indigent subscribers in the Kaiser-Permanente plan in Portland, Oregon, was considered in the calculation of capitations, as well as the age and sex distribution of the target population. In short, HCHP charged higher capitations for low income subscribers using the rationale that the increment would provide a contingency against the risk of greater utilization of services by these patients. But, several recent studies have shown less utilization of health centers by low income pa-

HCHP spokesmen promised that the higher capitation fees would be adjusted based on actual utilization patterns during the first year of enrollment. On April 1, 1971, HCHP officials decided that the rate of utilization by low income subscribers justified a reduction in capitations, which nonetheless remained higher than those received for patients covered by commercial carriers. (Table 1)

Even after the revision, HCHP receives significantly more money for low income families who are enrolled. As shown in Table 2, annual capitations paid to HCHP for a low income family of two adults and five children would total about \$200 more than for higher income families. Therefore, unless low income subscribers show markedly higher utilization patterns in the future, which appears unlikely in view of experiences thus far, HCHP will benefit financially by the enrollment of these patients.

Teaching. Medical schools' interest in HMOs extends beyond

monetary concerns. HMOs affiliated with medical schools will help maintain the population of patients available for teaching purposes. Medicare, Medicaid, and other government programs provide hospital accommodations and services for low patients, equivalent to those enjoyed by private patients. People who previously had no alternative to ward medicine, and who, therefore, served as teaching material for medical students and house officers, are now more able to avoid participation in teaching. The possibility that medical schools will turn to private patients for teaching has evoked widespread concern among medical educators.

HCHP's use of HMO patients for teaching has evolved gradually. During the first year of the program, there was no teaching at the HCHP ambulatory facility, although HCHP

TABLE I

Monthly Capitation Per Person
Harvard Community Health Plan (\$)

Coverage						
	Private carrier	Me	dicaid	Supplementation grant		
		Initial	April 1971	Initial	April 1971	
Adult	\$17.01	\$23.87	\$19.89	\$23.00	\$21.00	
Child	\$ 9.08	\$12.98	\$10.82	\$12.00	\$11.00	
Elderly person	n —	\$22.98	\$19.15	\$22.00	\$20.00	

TABLE II

Total Annual Capitation for a Family of Seven
(2 adults and 5 children)
Harvard Community Health Plan (\$)*

	Coverage	
Private carrier	Medicaid	Supplementation grant
\$953.04	\$1126.56	\$1164.00

^{*} Rates effective April 1, 1971

patients admitted to Harvard teaching hospitals could receive attention from students and house staff. During 1970, three senior residents from Harvard teaching hospitals began to see patients at the HCHP ambulatory facility. Assigned to a senior physician's panel of patients, these residents participated in patient care with the patients' permission. HCHP officials intend to increase the involvement of house officers. In addition, HCHP offers a course to first-year medical students to acquaint them with group practice carly in their careers.

HCHP does not receive funds from Harvard or the Harvard hospitals for teaching purposes. The question then arises whether patients' premiums to HCHP support this teaching. Officials assert that senior physicians' teaching time at HCHP is covered by the personal research grants of instructors as well as by the time physicians are expected to devote to teaching in addition to their HCHP patient obligations. Whether this financial arrangement will continue as the scope of teaching increases, is uncertain. In any case, HCHP patients increasingly will become available for teaching purposes.

Costs, competition, and overlap. The four teaching hospitals participating in HCHP, Peter Bent Brigham, Beth Israel, Children's Hospital Medical Center, and Boston Hospital for Women, all receive payment for inpatient services according to a fee schedule which resembles the standard Blue Cross formula. In addition, they are reimbursed for bed use at their ongoing daily rates. Thus, the criticism frequently directed against Blue Cross — that it benefits hospitals and encourages inefficiency by imposing no effective cost controls — also applies to HCHP.

It should be noted that this situation differs from PGP's such as Kaiser-Permanente, which operates its own hospitals. In the latter case, although problems of cost control remain, the hospitals have an added incentive to reduce costs, since they function as an integral part of the HMO. These internal pressures toward efficiency do not apply to hospitals which establish contracts with HMOs, while remaining free to charge their own day rates. Moreover, as PGP enjoys increasing government and philanthropic support, it enhances the present financial and power positions of the teaching hospitals.

The hospitals participating in HCHP are currently developing their own HMOs, or programs closely resembling HMOs, independently from HCHP and from each other. Most often these programs are described partly as attempts to overcome the present fragmentation and duplication of services by creating a more comprehensive approach to health care. However, the plans sponsored by the various hospitals tend to compete with each other for subscribers.

For example, Health, Inc., is a community health program sponsored by three of the four hospitals which also participate in HCHP. Representatives of HCHP Health, Inc., have approached the same tenants' associations and other groups in Boston with offers of services to members of these organizations. Community residents who serve as recruiters for HCHP often speak of "turf battles" with Health, Inc. The chairman of a community committee formed to advise HCHP on policy matters, has described Health, Inc. as "the enemy."

These developments convey an impression of overlapping and duplicated programs. They are reminiscent of the multiplicity of expensive, technologically advanced facilities such as radiation therapy and transplantation units which are contained within a small geographic area. Although a basic tenet of comprehensive planning is that overlapping facilities should be avoided, this does not appear to apply to the big teaching hospitals' involvement in HMOs. Rather than merging and coordinating programs, each institution seems intent upon establishing its own plan, even in competition with similar plans sponsored by neighboring hospitals. Maintenance of the financial and power position of each institution — again, the issue of medical empires — seems to receive high priority.

Implications. What difference does it make that large medical centers will increase finances and teaching material through HMOs? The issue is more important than a matter of dubious motivation.

The establishment of HMOs close to existing medical centers does little, if anything, to improve the distribution of health care in the country as a whole. It is true that several HMOs have extended services to urban low income patients, who now enjoy easier access to care than in the past. Still, the disparities are huge, and likely to remain so if medical centers are free to start HMOs on a strictly voluntary basis.

Obviously, medical schools must have sufficient operating funds and enough informed patients, from all income levels, who agree to participate in teaching. But these problems, together with the problem of maldistribution, will not be solved by the haphazard establishment of HMOs linked to existing medical centers, where personnel and facilities are already heavily concentrated.

THE INSURANCE INDUSTRY

Ten commercial insurance companies, in addition to Massachusetts Blue Cross, have agreed to offer HCHP benefits to their subscribers. The most frequent arrangement is that companies, universities, law firms, hospitals, and other organizations in the Boston area, which previously sponsored insurance programs for employees through Blue Cross or a commercial carrier, may now provide membership in HCHP as an alternative to insurance coverage.

The participation of Blue Cross and the commercial carriers appears to reflect a significant accomplishment for HCHP negotiators. With its public standing and extremely large group of subscribers, Blue Cross provides a prestigious affiliation for HCHP.

The commercial insurance companies associated with HCHP are bastions of American capitalism. Eight of the ten companies are among the richest corporate entities in the United States, with cumulative assets totaling over \$98 billion.

What does the insurance industry stand to gain from its involvement in HMOs such as HCHP? Based on their financial and administrative arrangements with HCHP, it is difficult to conclude that the insurance companies' interest in HCHP rests solely on profits from this single venture. The insurance companies underwrite HCHP's benefits but do not give direct financial support in the form of grants. Specifically, the companies underwrite the risk bevond 20 percent of projected permember costs for hospitalization and ambulatory health center utilization. Under a contract with HCHP, Blue Cross and the commercial carriers also perform administrative functions such as billing, receiving payments, processing subscribers' claims for services received outside the Boston area, and collecting statistics.

In return for underwriting part of the risk of HCHP subscribers and performing these administrative tasks, the insurance companies receive from four to eight percent of HCHP's premium dollar. This return represents a small margin of profit, especially when compared to the more lucrative forms of coverage which the commercial carriers sell, both inside and outside the health field.

Viewed from a slightly different perspective, however, participation in HCHP and similar PGPs may emerge as excellent investments for the insurance industry in the long run. Blue Cross and the commercial carriers would serve no necessary functional purpose if NHI were enacted. Under NHI, an independent federal bureaucracy could administer the collection of premiums and payment of benefits without the involve-

ment of the present insurance industry. Yet, the NHI proposals of the American Medical Association, the Nixon Administration, and the Health Insurance Association of America rely on the commercial carriers as integral parts of NHI.

Under these plans, insurance companies would assume one of two roles. One possibility is NHI would only provide public subsidies for low income individuals, so that they could purchase health insurance through the existing structure. Or, NHI would insure all members of the population, with the insurance companies providing the administrative apparatus.

It should be noted, however, that NHI could be established without any involvement of the insurance industry. Senator Kennedy's plan excludes the industry completely and substitutes a federal Health Security Board with administrative responsibility for NHI (while relying for its revenues on a regressive tax system that resembles Social Security in taxing employees.)

Because it need not be a part of NHI, the insurance industry must move rapidly to justify its role in any future NHI programs. Neither Blue Cross nor the commercial carriers have achieved exemplary records of innovation in the delivery of health care. Blue Cross has been criticized throughout the country for rate increases which contribute to the overall inflationary costs of medical services. Generally supporting feefor-service medicine, the commercial carriers only recently have begun to argue in favor of comprehensive care in the context of HMOs. It appears that the insurance industry's newly found interest reflects a growing need to legitimate its continued existence as part of the health care system.

The industry must present evidence to legislators and the general public that it can play an effective role in the medical care of the future. Since NHI probably will recognize and support PGP, insurance companies are eager to associate themselves with organizations like

HCHP. Such experience will provide a strong argument that the insurance industry can function as administrative apparatus of NHI or as a conduit of NHI money from the government to providers of services.

However, HCHP officials acknowledge that an expanded HCHP bureaucracy might be able to perform administrative tasks just as efficiently as Blue Cross and the commercial carriers. This situation hardly justifies the profits which may accrue to the insurance industry under NHI.

HCHP officials entered into agreements with Blue Cross and the insurance companies for purely pragmatic reasons. First, HCHP is not chartered to provide insurance in the Commonwealth of Massachusetts, distinguishing it from Kaiser-Permanente and HIP. These latter programs are either licensed or specifically excluded from state licensure provisions. Although HCHP officials initially were interested in obtaining a charter under Massachusetts law, administrators of Harvard University did not wish to involve the University directly in the insurance business. Furthermore, HCHP did not have the capital reserves required for a Massachusetts insurance charter. HCHP officials also wanted to avoid the cumbersome inspection and review procedures that chartered insurance companies must undergo. Cooperation with Blue Cross and the insurance companies enabled HCHP to circumvent the legal problems of a PGP with no charter to sell insur-

Another reason for involving the insurance companies was uncertainty about the future of health care financing. HCHP planners believed that changes in financing would occur, probably in the direction of NHI, but did not know whether the insurance industry would continue to play an active role in new government programs. The planners decided to cooperate with the insurance industry, because insurance companies might form a component of future health care delivery programs.

Third, about 90 percent of HCHP's non-indigent population of 24,000 already subscribed to health insurance. HCHP had no consumer population comparable to those of other large scale HMOs such as the employees of Kaiser industries or labor unions which have sponsored HMOs. HCHP was forced to attract subscribers from existing insurance plans. The experience of comparable HMOs indicated that planners could anticipate public opposition from the insurance industry if HCHP attempted to operate as an independent insurance agency. This opposition would create great difficulties in attracting subscribers. To avoid conflict with the insurance industry, HCHP entered into agrecments through which insurance companies could offer HCHP benefits to their own subscribers. Individuals would have the option of joining HCHP, and their premiums still would be channeled through insurance companies. By avoiding acrimony between HCHP and the insurance industry, HCHP planners hoped to expand enrollment.

Therefore, the participation of Blue Cross and commercial insurance carriers offered advantages to the industry and to HCHP itself. HCHP based its decision to cooperate with the insurance industry on anticipated legal, financial, and political gains. Apparently HCHP officials did not critically evaluate the long-term policy implications of this decision. Yet, if the insurance industry serves no demonstrable function under NHI, the question remains whether the industry's future profits from health care are in the public interest.

COMPANIES OFFERING EMPLOYEE BENEFITS

Over 750 organizations have agreed to offer HCHP benefits to employees. The advantages that accrue to companies and other organizations that pay part or all of their employees' premiums for PGP enrollment deserve brief comment.

A company's provision of health care is a fringe benefit, a form of non-income compensation. Since cmployees otherwise would spend a portion of their annual income for medical care on a fee-for-service basis, the purchase of prepaid health care by employers results in an effective increase in employees' compensation.

Employers need not pay Social Security or related taxes on this non-income compensation; similarly, health care received as a fringe benefit is not subject to individual income taxes, according to Internal Revenue Service regulations. As a result of these advantages, HMOs enable employers to increase employees' effective compensation without the expense of higher taxes.

On the surface, the provision of health care as a fringe benefit appears to hurt no one. As sociologists S. M. Miller and Pamela Roby have shown, however, non-monetary compensation increases the inequalities between the many poor, unorganized workers who do not receive fringe benefits, and the organized labor force. Trends so far indicate that upper income workers are most likely to receive HMO benefits from employers.

Perhaps more important, the financial implications of offering health services as a fringe benefit have led to further commercialization of medical care. Rather than viewing health services as a basic right of the sick, corporate executives favor participation in HMOs because of their financial advantages. An alternative position, of course, is that medical care should be provided to all citizens equally, regardless of occupational status.

WILL VOLUNTARISM WORK?

While HMOs and NHI are being viewed as solutions to the current health crisis, existing HMOs are receiving little critical attention. Although they offer potential advantages to medical schools, teaching hospitals, insurance companies, and business establishments, there is no evidence that HMOs and NHI will significantly improve the distributional problem which now confronts us.

It will be difficult for Americans to give up the principle of voluntarism in medicine. The idea that doctors should be free to practice as they see fit is deeply engrained, perhaps because it is linked to the basic values of individualism and private enterprise. Moreover, a large sector of the American economy (drug companies, insurance carriers, equipment manufacturers, etc.) depends on the prescribing and purchasing power of private practitioners and independent hospitals.

Yet records from other countries show that meaningful improvements in health systems do not derive from voluntaristic measures or from simple changes in financing. National health services, with compulsory measures requiring physicians to serve for periods of time in areas of medical need, have enhanced medical care in many countries. It is difficult to see how the situation in the United States will improve significantly without massive reorganization of the health care system. Sooner or later, this reorganization will involve compulsory measures, probably including some type of NHS.

Compulsory mechanisms would not automatically solve all the nation's health problems. Depersonalization, alienation, and bureaucratic inefficiencies arise in national health services, as well as in systems based on private practice.

But, in the United States, a health system based on voluntaristic practice has failed. There is no evidence that HMOs and NHI will improve the situation appreciably. Rather than wasting more time and money, isn't it time that we take the idea of a national health service more seriously?

(Complete list of references available on request.)

FOOTNOTES

- 1. Fein, R., in Schorr, D., *Don't Get Sick in America*, Nashville, Aurora, 1970, p. 171.
- 2. Maloney, J. V., "A Report on the Role of Economic Motivation of Medical School Faculty," *Surgery*, 68:1-9, 1970.

Because of the controversial nature of the preceding article, the Bulletin asked Joseph L. Dorsey, '64 Medical Director of the Harvard Community Health Plan, to respond to the issues raised by Dr. Waitzkin and Miss Cohen.



Commentary

by Joseph L. Dorsey '64

whealth Maintenance Organizations: A Critical Appraisal of the Harvard Community Health Plan" presents positions on a number of issues with which HCHP would agree. NHI alone will not solve this country's health care crisis, including the problem of health manpower distribution. Efforts to effect improvement in the organization of health care, e.g., HCHP, are needed. The article also contains a number of inaccurate statements and presents a variety of irrelevant issues that deserve clarification.

An analysis must, at first, recognize the conceptual foundation upon which the authors base their paper. They apparently support a compulsory national health service system. such as those they cite in Russia, Cuba, China, or Great Britain. They prefer that physicians be compelled to serve in areas with unfavorable physician ratios. Such a system, while appropriately directed at correcting manpower inadequacies, carries with it so many features which are totally at odds with the evolution of health services in this country (e.g., governmental ownership and control of facilities, and employment of physicians) that it is difficult to imagine any substantial body of support for such an effort. In fact, anyone holding such a position would not be able to support any of the

current legislative proposals that this country is seriously evaluating.

The authors claim that HCHP receives larger capitation payments for low income enrollees than for those privately enrolled. The article refers to a time early in the Plan's history when little was known about serving a Medicaid population. Subsequent experience has permitted a reduction in rates so that the Medicaid and Supplementation population are now charged a capitation constructed from the same base as the privately enrolled members. Differentials are only applied for specific benefit differences. (See Appendix.)

Another inaccuracy in the paper concerns the hospitals that participate in the HCHP. Their statement that these hospitals "are reimbursed for bed use at the on-going daily rates," is incorrect. Participating hospitals are reimbursed according to a cost formula, as defined and audited under the Medicare program. They are *not* reimbursed on the basis of their rates or charges.

The authors' claim that the arrangements that HCHP has with its hospitals do not promote cost savings to its members because HCHP does not own its own hospitals, as Kaiser-Permanente does, is another misleading statement. The assumption is that Kaiser's well known ability to control hospital

The logogram pictured above, symbol of the HCHP, represents
A Family Triad on a Shield of Protection

costs is due to reduced operating costs in its hospital facilities. The Report of the Health Manpower Commission, commenting on Kaiser, indicated "in the case of annual per person cost of hospital care, lower hospitalization rates . . . explained three fourths of Kaiser's relative savings-lower per diem costs accounting for the other one fourth of savings."3 (author's emphasis) Members of HCHP have used about 400 days of hospitalization per 1,000 enrollees per year. This is compared to approximately 850 days of hospitalization for people under the age of 65 in the Massachusetts Blue Cross/Blue Shield/ Master Medical program. Control of the rate of hospitalization has effected substantial savings in the overall cost of hospitalization for HCHP enrollees.

Furthermore, it is implied that HCHP should own its own hospital beds. The startup costs for an HMO would be enormously larger if hospital construction or purchase were included at the start of a program. Boston is already overbedded and HCHP should continue to use existing bed facilities.

The authors suggest that sponsorship of HCHP has improved the overall financial status of the Medical School. On the contrary, the Medical School has placed itself at considerable financial risk in sponsoring the development of HCHP. Loans from the Medical School amount to hundreds of thousands of dollars. Repayment depends on the ability of a new and previously untried organization to succeed. The financial burden to the School has been a major reason for the slow maturing of interest by other schools. The premium income of patients is used to support the service benefits, not other activities of HMS.

As well as the many incorrect statements made by the authors, they discuss many issues that are irrelevant to a critique specifically directed at HMO's. The fact that increasing fringe benefits increases the disparity between people who are gainfully employed and the poor is

an example of this irrelevancy. We would agree completely with the position that access to coverage of health services should be available as a right of citizenship, rather than linked to the place of employment of the bread winner. However, it remains a fact that health insurance benefits in this country are tied to employee related fringe benefits. So long as this is true, employee groups will seek to improve their level of fringe benefits as a justified means of upgrading their status in society.

That insurance companies, according to the authors' analysis, would not be needed under a national health insurance system is also irrelevant. It matters little to HCHP whether the third party forwarding the capitation is a carrier such as Blue Cross, an insurance company, or a public program such as Medicaid or Medicare. The flexibility of HCHP's arrangements has already been demonstrated by its ability to receive capitation payments from Medicaid. The involvement of insurance carriers reflects an understanding of the current state of evolution of payment for health services in this country. If one wishes to have a health insurance program, one must enter into the business of marketing health insurance benefits.

In conclusion, HCHP has managed to enroll 29,000 subscribers, 2,500 of whom are Medicaid recipients through the Department of Public Welfare. Another 1,000 subscribers are supplementation recipients whose income qualified them for a USPHS grant. All these patients are receiving care in a one class system where primary care services are available to them in the Health Center and hospital. Physicians who previously would have been likely to seek other professional outlets are involved in primary care and making their services available to enrollees. Establishing programs which provide a professional setting in which physicians can be attracted into the practice of primary care for people from all socioeconomic backgrounds is likely to offer a partial solution to the problems of manpower distribution in urban centers 4, 5.

FOOTNOTES

- 1. Somers, A., *The Kaiser Permanente Medical Care Program*. New York, The Commonwealth Fund, 1971, pp. 206-207.
- Greenlick, M. R., Et Al., "Comparing the Use of Medical Care Services by a Medically Indigent and a General Membership Population in a Comprehensive Prepaid Group Practice Program," presented at the 98th meeting of the American Public Health Association, October, 1970. Medical Care, 10:187-200, 1972.
- 3. Report of the Health Manpower Commission, Vol. 11, App. IV, Kaiser Foundation Medical Care Program, 1967, p. 211.
- 4. Dorsey, J. L., "Physician Distribution in Boston and Brookline, 1940 and 1961." Medical Care, 7:429-440, 1969.
- 5. Dorsey, J. L., "Manpower Problems in the Delivery of Primary Medical Care." NEJM 282:871, 1970.

APPENDIX

The discussion of HCHP capitation rates reflects a number of misconceptions and factual omissions. Differences in capitations paid to HCHP on behalf of the various membership categories are due to differences in estimated cost levels at the time such rates were put into effect, differences in age and sex composition, differences in levels of coverage, perceived differences in assumed risk, and differences in arrangements for underwriting services. Table I shows the current rates of payment to HCHP for enrollees in the Plan.

Originally a 20 percent underwriting factor was built in because of the extremely limited volume of data available on the utilization of health services by low income enrollees in prepaid group practices (and the resulting uncertainties) in contrast to the enormous wealth of data available on the utilization experiences of members enrolled through the broad base of private group enrollment (with relatively far fewer un-

TABLE I

	Private Carrier		Medicaid and Su	pplementation
	Child	Adult	Child	Adult
Base Capitation	\$11.05	\$18.90	\$11.05	\$18.90
Elimination of \$1 office visit			.25	.25 (1)
Transportation			.68	68 (2)
			\$11.98	\$19.83

⁽¹⁾ Privately enrolled members are charged a one dollar registration fee at each doctor office visit at the Health Center. Assuming 3.0 visits per person, per year, this fee brings in three dollars per year in revenue. Medicaid and supplementation recipients are *not* charged the one dollar registration fee. Instead, the three dollars is divided into 12 monthly payments of 25 cents built into the capitation. (\$3.00 \div 12 = 25£) This is, therefore, a simple mathematical transposition. For all enrollees it is collected, either as a fee at the time of the visit, or as part of the prepaid capitation. In any case, the amounts were projected on the same basis.

TABLE II

Days of	Hospitalization	1	1,000	pop.	/ year
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certaintics). Of the 20 percent underwriting factor, one fourth was paid to a carrier for assuming risk beyond certain defined limits as required by law.

As indicated in Dr. Waitzkin's paper, Medicaid rates, effective in April, 1971, excluded the 20 percent underwriting factor, since the prior ten month period established a more certain basis of experience, showing the contingency margin to be unnecessary. The differential in base capitations, as indicated in Table I, was eliminated completely in the current year.

It should also be pointed out that private insurance companies add additional factors to the HCHP capitations when computing premium levels charged privately enrolled groups to cover the costs of administration and billing, and to provide risk protection. The cost of HCHP to the privately enrolled is a combination of the HCHP capitation and these additional charges.

One reason it was believed that adverse utilization would result was

Age	Males	Females
20-24	215	738
25-29	219	772
30-34	200	641
All Ages	432	543

the fact that most families enrolled as Medicaid recipients are one adult (female), AFDC families. The result is a disproportionate concentration of females in the 20-34-year age groupings. As shown in hospital datal from the Northern California Kaiser Region (Table 11), this group has an unusually high utilization experience, mostly in obstetrics and gynecology services.

That such concerns were not without foundation is indicated by subsequent reports from other Plans. The Kaiser-Permanente Plan in Portland has analyzed the use of medical services by a medically indigent group enrolled through OEO and its privately enrolled membership. They pointed out the fact that significant differences do, in fact, occur.

There are significant differences in the age-specific utilization rates between the health plan sample and the OEO poppulation. . . . These differences are most pronounced in the 19 to 44-year-old age group where persons in the health plan sample used 273 doctor office visits/100 and the OEO population 354 and in the 45 to 64year-old age group where the OEO population used 422 doctor office visits/100 as compared to the health plan rate of 312. In both groups persons under age 19 used doctor office visits at essentially the same rate-189 doctor office visits/ 100 in the health plan sample and 183 in the OEO population.2

⁽²⁾ Transportation is provided between the outreach center in the Mission Hill/Parker Hill community and the Health Center at 690 Beacon Street. A minibus operates each half hour during the time the Health Center is open. The \$22,000 annual cost is translated into a monthly per capita payment. No similar service is provided to the privately enrolled population.

Science

Without

Conscience

by Jean Mayer, Ph.D.

professor of nutrition harvard school of public health

Science without conscience," said Rabelais, "is but ruination of the soul." This sentence appears in a letter of Gargantua to his son Pantagruel, after Gargantua has commanded him to master as many secrets of natural science as were taught in his time. This precept is as timely today as it was then.

In this century, we have seen the unleashing of chemical warfare by the Germans in World War I, the human experiments conducted by the Nazis in World War II, the welcome given by both the West and the Russians to the technological mercenaries whose skills devised the V-1's and V-2's, the stockpiling of horrors for biological warfare, and crop destruction in Vietnam. At least some scientists spoke up about these abominations as they occurred. In an age in which the volume of voices, including those of scientists, has been raised by at least one order of magnitude, little thought seems to have been given to the conditions under which a scientist can or must speak as a scientist, as compared to

those occasions on which he speaks as a citizen, who may have acquired distinction or fame as a result of his scientific work.

First, let us agree that greater knowledge brings greater responsibility. Whenever the knowledge of a scientist is directly relevant to the solution of an important social problem, which is not being adequately handled, we may agree that it is legitimate for the scientist to speak. The Periclean dictum, "In Athens, we think that silent men are useless" still applies in a 20th century democracy based on science and technology. There are many areas hunger, malnutrition, pollution, and the maldistribution of health facilities — where information was available to professionals long before they (or others) spoke up.

The prolonged silence of scientists has often led to accusations of moral neutrality and I believe, is directly responsible for so many gifted young people turning away from science; a tragedy, for while science alone will not solve the problems of society,

they will not be solved without it.

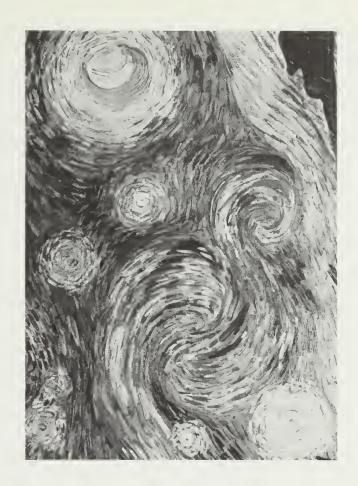
One general area in which scientists ought to speak is the measurement and evaluation of programs. In every area of public activity health, food, education, defense we are maintaining or launching enormous programs without any built-in evaluation method to determine whether the programs are working at all, whether they show a rapidly diminishing return as more money is expended, or whether an alternative is not more profitable. Such a watchdog role can only be filled by the intervention of specialists who can choose and define the yardstick, and by the general support of scientists who, unlike politicians and the general public, are or should be perpetually open to the idea that the best and often the only way to study a phenomenon is through a series of measurements.

Second, let us agree that scientists ought not to speak as scientists in areas unrelated to their scientific qualifications. They can, obviously, express their views as citizens, but they should be careful not to let an irrelevant scientific prestige obscure the debate. Although this writer happened to sympathize with much of the emotion felt by opponents of the ABM, the SST, and the Amchitka explosion, it was extremely irritating to be unable to distinguish the voices of those who could discuss the pertinent issues with authority from the mass of statements by noncompetent scientists.

Third, let us all be careful not to let our enthusiasm for important causes carry us beyond the limits of our competence; let us at least clearly signal when we cross the border and henceforth speak as laymen. Recent debates on agriculture and the environment are cases in point. They often assume the character of dialogues of the deaf where each side pursues its "idée fixe" without any recognition of the validity of other viewpoints. We obviously cannot feed the world without fertilizers and other agricultural chemicals. The use of pesticides has been

of inestimable value in mosquito control inside human habitations and in judicious applications outside; on the other hand, the application of chemicals to the environment has its ecological cost; when the application is massive, as in cotton growing areas, the cost can be high and secondary DDT resistance has complicated problems of malaria control.

We must guard against exaggerations even when committed for a good cause. Because our Western culture has never come to terms with nature, it is often expedient to exaggerate the perils to man of ecologically dangerous agents. In the Scriptures, the only sympathetic reference to animals of no economic value to man was in the story of Noah's Ark and the Covenant. The Neoplatonic inspiration of the Church Fathers, the Manichean influence of Augustine, the Thomist "Natural Law" unrelated to Nature, the anthropomorphism of the Reformation, of the American, French, and Russian revolutions all influenced us to believe that ethics is concerned only with relations between man and man, man and society, or man and a personal God. The isolated voices of Francis of Assisi and Schweitzer had no social impact. We were unwilling or unable to learn from a Hinduism committed to metempsychosis, from African cultures committed to animism, or from our own native Indian philosophy committed to oneness with Nature and accountability of animal life. Our conservation movement was sponsored by a President who spent his leisure shooting animals all over the world. In the absence of a general acceptance that animal and plant species have a right to existence because, like us, they are here and thus that nature should be defended for her own sake, ecologists appear to be constantly tempted to exaggerate the toxiocological dangers to man of any factor which modifies the environment through its toxicity for other species; the result is a steady erosion of the credibility of science.



Finally, the academic scientific community must come to terms with the existence, in industry, of a great many scientists who have not abjured their ethics either as scientists or as citizens because they have left universities. Most practical problems will not be solved without their active cooperation. For example, in the field of environmental protection, industrial scientists are often the only ones who have the analytical methods that permit the study of the dispersion of chemical agents in the environment, or who know the distribution of suspected additives in foods. The practical problem is to encourage them to publish and to speak up according to their conscience by giving them the support that physicians find in their medical associations, and teachers in their unions or in the American Association of University Professors. Such a set of practices would work out to the long-term advantage of industry by answering in advance (as needs to be done now for food additives and drugs) many of the questions

necessary for the clearance of new compounds and by decreasing the likelihood of ruinous negligence and environmental law suits. Such a new practical ethics would surely be preferable, from the viewpoint of the national community, to the alternative: the encouragement of secret communications to consumer advocates by industry scientists afraid to speak openly. The moment seems opportune to have a national organization, like the American Association for the Advancement of Science, form a committee to examine the role of the industrial scientist in regulatory processes and environmental protection.

If we, as scientists, want to restore John Winthrop's vision of America as "a City upon the Hill," we must learn to exercise our conscience as citizens without losing our ethical values as scientists.

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URING the last several years, the urgent need to increase the numbers of minority group physicians, dentists, and other health related professionals has been increasingly recognized by health professions educators. Medical, dental, and other health professions schools have initiated programs to erase the existing, well-documented deficit of health professionals from minority groups. Many of these programs have centered on intensified efforts for the recruitment of students from minority groups and the retention of the accepted students through special programs of remedial work, educational and career guidance, and adequate financial support. Although these measures are essential, they are by themselves inadequate because they are all too often focused on a numerically deficient pool of qualified, motivated, health-career oriented candidates. If there already existed a substantial pool of qualified health career oriented candidates at which to direct recruiting efforts, then special programs for recruitment and retention of students from minority groups would become more effective, efficient, and eventually (hopefully) unnecessary. I will attempt to describe the development, organization and implementation of a program designed to stimulate interest in the health professions among minority group students in college and to strengthen the preparation of these students for graduate professional study.

The Genesis and Early Development of HCSP

The initial impetus for the Health Careers Summer Program came in 1968 in a letter from eleven Harvard Medical School faculty members to Dean Robert H. Ebert. This concern was further reinforced by a petition signed by half of the students at the Medical School during the early spring of 1968. In addition to a request that Harvard establish a commission to assess the potential contributions of the Harvard Medical Community to the Black Community, the petitioners supported propos-

HCSP:

A Cooperative Educational Effort

by Robert S. Blacklow '59

als for immediate programs to recruit blacks and other minority students. In April, 1968, Dean Ebert created the Committee for Disadvantaged Students. One of the major recommendations that emerged from the proddings of this Committee was one which recognized the great need for enhancing the academic preparation of potential applicants to medical and dental schools not only at Harvard but also over the United States. Two options were considered: the first would provide preparation for graduate school after students had completed their college education; the second would provide the prerequisites in an academic environment during a portion of the summer vacation. Harvard chose the latter. Thus was created the Health Careers Summer Program (HCSP), a cooperative educational effort of the Harvard Medical School, the Harvard School of Dental Medicine, and the Harvard Summer School. The Program was organized to parallel the Intensive Summer Studies Program (ISSP) which had been initiated in 1965 by Harvard, Yale, and Columbia to provide white and black students from small southern colleges with academic training to prepare themselves for graduate school. Establishment of the HCSP marked the first time a major American university had attempted to provide an academic uplift program aimed specifically at enhancing the entry of minority students into graduate education in medicine, dentistry, and other allied health professions.

It should be noted that from the beginning, the HCSP was viewed not as a primary recruitment mechanism for either the Harvard Medical School or the Harvard School of Dental Medicine, but rather as a means to develop qualified applicants for health professional schools at all universities across the country. It was also hoped that the HCSP could aid these professional schools in evaluating the academic background of candidates from colleges with which most of the schools had very little previous acquaintance. Finally, it was thought that the HCSP could enhance communication and interaction between health professions schools and the colleges from which the HCSP students would be drawn.

Several general lines of policy grew out of discussion early in the developmental stages of the HCSP. It was thought that there was a large pool of students not only from Black, but also from American Indian, Mexican American, Puerto Rican, and low-income Caucasian communities who could be identified, encouraged, and prepared to enter dentistry, medicine, and other related health medical sciences. These students could be made aware of the fact that there was not only a need but also an opportunity for a career in a health profession. In addition, these students would have the opportunity to rectify any existing academic deficits owing to the often inadequate academic milieu in the sciences basic to medicine with which many of them might be struggling.

It was decided that the HCSP should be aimed primarily at minority group students attending colleges from which most medical and dental schools had not in the past drawn appreciable numbers of students. It was further decided that special efforts should be made to attract college freshmen and sophomores who would have the benefit of more than one summer's participation. It was also decided not to accept any student who had been accepted by any dental or medical school and who desired or required a summer of extra science preparation or orientation for entrance into the school. This latter decision was made because of the expected limits on the HCSP resources and a belief that such extra preparation and orientation should appropriately be the responsibility of the school that had accepted the student.

Format of HCSP

The HCSP is divided into three major components: Academic course work in the Harvard Summer School; Academic Tutorial; and Clinical Tutorial.

Academic Course Work

The academic course work consists of the enrollment of each student in a regular Harvard Summer School course in the sciences or mathematics. Each student in the Program chooses from the biology, chemistry, physics, and mathematics courses offered at the Summer School. Students are counselled in their selection of a course by tutors and other officials of the Program but final selection remains with the students. The selection of the courses by the student falls into three categories: advanced courses by those students with good grade point averages who need to demonstrate that the work done at their home institutions is comparable to the work done at a major university; intermediate courses by those students who wish to do intensive study that would not normally occur at their home institution; and review courses by those students who took similar courses at their home institutions but did not obtain adequate comprehension. Examples of academic courses offered are:

Introduction to Biology
Animal Ecology
Comparative Vertebrate
Anatomy
Cellular Biology
Introductory General and
Inorganic Chemistry with or
without laboratory
Elementary Physical Chemistry
General Biochemistry
Analytical Geometry
Introduction to Calculus
Intermediate Calculus & Linear
Algebra
Statistics in the Social Sciences
Introduction to Psychology

Where course offerings permit, students are encouraged to concentrate on a single subject during successive summers. For example, a student electing Chemistry would take Introductory Chemistry his first summer, Organic Chemistry his second summer, and Biochemistry the third. The teachers of the formal courses are regular faculty members of the Harvard Summer School.

Academic Tutorial

The second component is the academic tutorial. Students with similar academic backgrounds are placed in groups of four or five with the tutor teaching a specific science or math

Lab work fascinates HSCP students.



course commensurate with the group's prior academic training. An attempt is made to match the tutors' interests with the students' needs. The academic tutorials are informal so that good tutor-student interaction provides maximum learning experience. The material covered within the academic tutorials depends upon the professional knowledge and expertise of the tutor. Each academic tutorial meets at least three times a week for an average of six to eight hours. The tutorials are assigned a course number and are awarded academic credit. Students are responsible for readings and the preparation of oral seminars and written papers. On the basis of experiences in the ISSP, it was thought that the tutorials would provide a flexible and effective mechanism of teaching. As a result of student and tutor feedback from the first two summers, refinements have been made in the type of academic tutorial offered. In 1971 and 1972, students had their choice of one of three types of tutorial: a tutorial offering remedial work in the students academic course work (back-up); one dealing with a separate academic discipline (discussion); one studying basic techniques of biological and biochemical research (lab-oriented). The lab-oriented tutorial is open primarily to HCSP students returning for their second or third year. In 1971, academic tutorials were offered in:

Introductory Chemistry —
discussion and back-up
Organic Chemistry — discussion and lab-oriented
Advanced Biology — discussion and lab-oriented
Introductory Calculus — discussion and back-up
Molecular Biology — discussion
Biochemistry — back-up, discussion, lab-oriented
Physics — discussion and back-up

Dr. Blacklow is assistant professor of medicine at PBBH and from 1969 to 1971, he served as director of the HCSP.

Examples of the type of activities carried out in the laboratory oriented academic tutorials are:

Ascptic Laboratory Techniques
Introduction to Techniques used
in Transplantation
Preparation of Biochemical
Laboratory Solutions and
Materials
Use of the Electron Microscope
and other Research Techniques
Studies of the Biochemistry of
Diseases prevalent among
black minorities such as sickle

cell anemia.

The academic tutors are selected by the Coordinator of HCSP in consultation with the Director of the Harvard Summer School. The criteria for selection are based on the expertise of the individual in a particular area of science or mathematics, experience in a tcaching role, detectable sensitivity to the problems of minority groups, and, if possible, minority status. Tutors are drawn mainly from Ph.D. candidates and postdoctoral fellows at Harvard and other Boston area universities and from selected Harvard Medical and Dental School students. Tutors receive orientation sessions before HCSP begins and have the opportunity to review in advance the records of all students assigned to them.

As a final ingredient to the academic component of the HCSP, it was anticipated that many of the enrolled students might have underdeveloped skills in the areas of oral or written expression and reading comprehension. It was thought that if these deficiencies existed, they could be recognized through the mechanism of small academic tutorials. Once identified, it was expected that additional emphasis on these areas in the academic tutorial would be arranged between the tutor and the student. Deficiencies in reading skills — a potentially serious handicap in any professional school — are treated in a course "The Improvement of Reading" offered during the summer school session by the Harvard Bureau of Study Council. This class meets daily from 8 to 9 A.M. and does not conflict with the regular courses.

Clinical Tutorial

The clinical tutorial consists of a weekly half-day meeting held at one of the various Harvard affiliated teaching hospitals. Students are assigned to hospitals in groups of 8 to 12 where they observe and, wherever possible, participate in the experiences of the clinical staff. The tutors are drawn from faculty members of the Harvard Medical School and the Harvard School of Dental Medicine. Arrangements are made for students to witness special activities such as operations, autopsies, births. The students also visit emergency rooms, mental wards, as well as community health centers and dental clinics. The aim of this portion of the curriculum is to acquaint students directly with the practical content and career opportunities of the health professional field and to provide them with experiences that will be helpful to them in deciding which aspects of the health professions they might wish to enter. As a result of feedback from previous programs, changes have been made in the last two years in the clinical component. The HCSP students who return from previous summers have been offered more sophisticated clinical programs so that previous experiences are not repeated. They are now able to choose one of a group of physicians with whom to spend at least one day a week. The following activities are examples of the advanced clinical tutorial experiences in which returning HCSP students participated:

participation in the methadone clinic;

participation in a pediatric emergency clinic;

observation and participation in pre- and post-operative care of patients;

attending and participating in legislative hearings on lead poisoning testing;

participation in evaluation of commercial foods for nutritional quality;

observation and participation in a dental clinic;

participation and observation of administration of radiologic examination;

observation and participation in performing autopsies.

Most of the tutorials involve subsequent group evaluation of the experiences and a discussion of ethical, social, and ethnic issues as they relate to the student experiences. There are several benefits of the clinical tutorial. In addition to the career educational and motivational opportunity they provide, the student is given the opportunity to establish a close personal link with a health professional, to receive firsthand counselling about health careers, and to acquire additional potential references for his health professions school applications.

Supplemental Activities

One of the most important secondary activities offered by HCSP is pre-medical and pre-dental counselling. Many of the administrators and faculty involved in HCSP have been distressed by the meager preprofessional counselling services presently available to the HCSP students at their home schools. Indeed this is one of the stimuli for this Summer Institute. Questionnaires were sent out to all college and universities from which applications were received for the 1969 and 1970 HCSP. Information requested included:

location of college;

graduate and undergraduate enrollment;

type of institution;

size of graduate, undergraduate, and science faculty;

percentage of faculty holding doctoral degrees;

percentage of students going to graduate school;

the availability of undergraduate counselling services and premedical counselling services in particular:

distribution of students by major fields;

number of course offerings in science.



An examination of this as yet incomplete survey indicates the following characteristics: many of the institutions from which the HCSP students are enrolled have a small science faculty in which a large percentage do not hold doctoral degrees; these institutions have traditionally had a small percentage of their students going into graduate schools in medicine or dentistry or into Ph.D. programs; although undergraduate counselling services are available in many of these institutions, there are a significant number of schools at which premedical counselling services are not available; for schools in which data is available, physical, biological and other natural sciences make up a relatively small percentage of the undergraduate majors. A questionnaire sent to 172 applicants to the 1970 HCSP, which included applicants both accepted and rejected from the Program, revealed that only two-thirds of the colleges in which the applicants were enrolled had a specific health career advisory system. Half of the students from these colleges felt that their advisors had inadequate knowledge of health career opportunities, application procedures, standardized admission testing, specific health professional schools, evaluation of personal or academic qualification, sources of financial aid, and alternate career choices. Many of the respondees from colleges with health career advisors felt that the advisors were overworked and compromised in their duties because of multiple obligations. It is hoped that, as a result of students applying to and participating in programs such as HCSP, a "ripple effect" on science courses, counselling services, and other characteristics of these many potential "feeder" colleges can be observed. In addition, institutes such as this may be a more immediate source of improvement.

Because of the above facts, a substantial counselling program was established at HCSP. Students, Faculty, and Administrative Officers of the Harvard Medical School, the Harvard School of Dental Medicine, Tufts, and Boston University Medical and Dental Schools made themselves available on many afternoons to answer questions that HCSP students might have about application to medical or dental school.

Another equally important facet of HCSP has been the medical and dental school recruiting program. The Office of the Coordinator of the Program sent letters to all the admissions offices of medical and dental schools in the United States before each HCSP session began, informing them of HCSP and its purpose. Each school was asked whether it would like to send an admissions office representative to observe the HCSP in operation, to interview HCSP participants, and talk with them about admission requirements. Representatives from over 30 medical and 15 dental schools observed HCSP in action and interviewed post-juniors interested in applying to their institutions. Several institutions sent representatives for a second trip. This phase of the program not only provides the students with information about schools to which they might ordinarily not have given serious consideration, but also provides the various admissions committees with information on the applicant which they might not ordinarily have.

Additional activities during the summer included guest lectures and

social events including a picnic, dance, beach party, and a formal banquet. All of these were attended during the past summers enthusiastically by students, tutors, and teachers in the HCSP.

HCSP in Action

During the summers of 1969 to 1972, the HCSP enrollments were 55, 98, 114, 99, respectively. There have been 273 Black, 47 Chicano, 28 Puerto Rican, 12 Native American, 3 Asian American, 2 Caucasian. and I Eskimo participant in the four programs. They reside in over 75 percent of the states and attend a variety of types of colleges. A total of 267 students applied the first summer, 452 applied for the 1970 program, 843 applicants for 1971, and 962 applications were received for this past summer. The pool is multiethnic and nationwide, rural and urban. Dissemination of information about HCSP has been conducted primarily by mail brochures to colleges and most effectively by word of mouth. Efforts to include all minority groups have been initiated and will continue. Eight of the nine students who participated in the 1969 HCSP and were subsequently eligible for admission to either a medical or dental school were able to enter an American medical or dental school as first year students in 1969. The ninth was enrolled in the fifth year program for additional academic preparation and is currently in medical school. A more detailed analysis was made of those who attended the HCSP in 1970 and who were eligible as post-junior college students to apply to either medical or dental school. Response to a questionnaire revealed that 88 percent (37 of 42) post-juniors enrolled in the 1970 HCSP applied to a professional school as compared with 32 percent (30 of 93) post-juniors rejected for admission to HCSP in the same year. A statistical analysis showed that this is a highly significant difference. Of equal significance is the fact that of the total applicants to the 1970 HCSP who applied to medical or dental school, 78

percent were accepted. In contrast, only 43 percent of those who were rejected after applying to the 1970 Program were accepted by medical or dental school. Thus, HCSP has been shown to be effective academically as well as motivationally. The data on the 1971 Program shows that 32 of the 49 applicants to medical and dental school have been accepted, whereas the nationwide average of acceptances to medical school is approximately 1 in 3.

It is clear from the response of the students, tutors, and observers that each of the three components of the Program has had a strong positive effect in increasing the knowledge and enforcing the career goals of the participants. Those responsible for the administration and operation of the HCSP believe that the experiences of four summers have demonstrated its value as a summer rather than a fifth year program. It is noted that Dr. Loyd Elam, President of Meharry Medical College, has expressed his uneasiness with the "extra year approach." Further, the cost per student for a full extra year of education would amount to as much as \$6,000 as compared with the estimated \$2,000 for HCSP.

Conclusions

Summer programs at established summer schools throughout the country, as at Harvard, with strong basic science programs, can offer the student an opportunity to upgrade his academic qualifications while at the same time enable him to decide whether he is interested in the health professions. In view of the increasing competitiveness for the few vacancies in medical and dental schools in this country, the edge that HCSP provides is significant. That these students would not have gained admission to a medical or dental school without HCSP is an untested hypothesis. That they are receiving a unique type of premedical-predental training is obvious when their undergraduate programs are examined. The ultimate effect of this sophisticated combination of academic and pre-professional ex-



Students learn drill technique in HSDM clinic.

posure is to strengthen and confirm the reality of medicine or dentistry as a career choice. To gain the experience of successfully competing in a different and usually more competitive academic environment is for many participants a means of career confirmation. For a few it has allowed them to reject their career choice without the personal risks that would have been unavoidable later in their career development. Informal counselling sessions play an important part in helping the individual student to evaluate his or her preparation and to identify problems existing in applying to medical and dental schools. Physicians and dentists, medical and graduate students, program administrators, and participants who are further along in their career development are the primary sources of information for these sessions.

Those responsible for the operation of HCSP are confident that the experience from one program can be organized at other universities and colleges with these provisos:

... that the university or college have in existence an open enrollment summer school with strong science courses;

- ... that medical and dental schools and affiliated hospitals and clinics are near the university;
- ... that the student enrolled in the program is part of the general environment of the summer school.

The financial support for these programs leaves their future in doubt. Throughout the first three years of its history, HCSP was financed primarily through private sources in the amount exceeding half-million dollars. The fiscal responsibilities for the program have been until this year handled by the Harvard Medical School. This responsibility often meant the absorption of a budgetary deficit. The Harvard Summer School, which now has the fiscal and administrative responsibilities for HCSP, as in the past has been extremely cooperative about assuming normal operational and managerial cost. A major portion of the financial support for the 1972 program is through a contract from the Office of Health Manpower Opportunity of the Department of Health, Education, and Welfare, but continued support from federal agencies in amounts exceeding \$250,000 a year cannot be assured.

THE WILLIAM O. MOSELEY, JR.

Travelling Fellowships

THE BEQUEST OF JULIA M. MOSELEY MAKES AVAILABLE FELLOWSHIP FUNDS FOR GRADUATES OF THE HARVARD MEDICAL SCHOOL FOR POSTDOCTORAL STUDY IN EUROPE.

The Committee on Fellowships in the Medical School has voted that the amounts awarded for stipend and travelling expenses will be determined by the specific needs of the individual.

In considering candidates for the Moseley Travelling Fellowships, the Committee will give preference to those Harvard Medical School graduates who have—

- 1. Already demonstrated their ability to make original contributions to knowledge.
- 2. Planned a program of study which in the Committee's opinion will contribute significantly to their development as teachers and scholars.
- 3. Clearly plan to devote themselves to careers in academic medicine and the medical sciences.

Individuals who have already attained Faculty rank at Harvard or elsewhere will not ordinarily be considered eligible for these awards.

There is no specific due date for the receipt of applications or for the beginning date of Awards except that the Committee requests that applications not be submitted more than 18 months in advance of the requested beginning date. The Committee will meet once a year in January to review all applications on file. Applicants will be notified of the decision of the Committee by January 31. The Committee may request candidates to present themselves for personal interviews.

Application forms may be obtained from, and completed applications should be returned to:

Secretary, Committee on Fellowships in the Medical School Harvard Medical School 25 Shattuck Street, Boston, Massachusetts 02115

-Negative Comments Blast Burack's Rx

To the Editor:

The 1.5 million figure for hospital admissions due to drug reaction alluded to by Dr. Burack in his article in the May/June Bulletin has been bandied about and misapplied long enough now that it is worth taking a look at its derivation. Dr. Burack attributed it to the FDA and implied that it is a relatively recent finding. However, as far back as February 13, 1969, Herbert L. Ley, Jr. '46, then Commissioner of Food and Drugs quoted it in a speech given to the New York Pharmaceutical Advertising Club, saying "It may surprise you to learn that at a recent NAS conference on drug usage, one speaker estimated that there were at least 1,500,000 hospital admissions annually due to drug reactions." Examination of the proceedings of that conference reveal that the speaker was Dr. Leighton E. Cluff whose actual words were, "About five percent of patients admitted to the medical services of general hospitals have serious reaction to drugs responsible for hospitalization . . . Projected nationally, therefore, about 1.5 million hospital admissions per year are because of diseases caused by drugs." One and a half million is five percent of 30 million, which is just about what American Hospital Association statistics showed for total hospital admissions for the preceeding year. So this, then, was a projection from experiences of medical services of general hospitals to hospital services across the board, including maternity, orthopedic, rehabilitation, ear-nose-throat, etc. and all types of hospitals, general, psychiatric, long-term, short-term, civilian, military, etc.

Moreover, the five percent admission rate is close to the highest I have been able to find reported in the literature and this was based on one of Dr. Cluff's own studies conducted at the Johns Hopkins Hospital. The observation period was three

months, January through March, 1964, and it was conducted on the resident medical service, not the total medical services of the hospital. Of 714 admissions, the five percent (36 altogether) were admitted with, not because of, a drug reaction. Those admitted because of reaction constituted 3.9 percent, or 28.

A subsequent study reported by this group, involving 900 admissions to a semi-private medical ward over a 12-month period, revealed a 3.9 percent admission rate with reaction, but only 1.7 percent because of reaction.

There is no question that adverse reactions to drugs are far more frequent than they ought to be, and present a problem that warrants serious attention. Nevertheless, despite Dr. Burack's assertion that the FDA is not given to overstatement, it would appear that some element of overstatement has found its way into the 1.5 million figure.

FENIMORE T. JOHNSON '43B

To the Editor:

Assertions made by Dr. Richard Burack in his article in the May/June *Alumni Bulletin* do not stand up well, in my opinion, and seem casual compared to how he wrote *The New Handbook of Prescription Drugs*. Here are some examples with my comments:

1. "I know that 98 percent of all patients can be adequately treated with 25 or fewer drugs and some of these need be used only rarely." AMA Drug Evaluations lists approximately 90 classes of drugs. Where would the anesthesiologist be without general anesthetics or the therapeutic gasses; where would the radiologist be without the radiopaque media; where would the emergency room physician be without the narcotic antagonists; and so on. I doubt that Dr. Burack treats any of his patients with these drugs; nonetheless, many of his patients receive

them from other physicians. Each specialist could probably make a list of 25 frequently prescribed drugs but each specialist would make a different list. Possibly he meant to say in this article what he says in *The New Handbook* on page 39, "Drugs which suffice to treat 90 percent or more of adult patients seen in office, outpatient clinic, or home by general practitioner, or internists may be called 'basic drugs' and are relatively few, at almost 60 in number. They are listed here in 21 therapeutic categories."

- 2. Dr. Burack recommends tetracycline to be used instead of ampicillin. Because permanent tooth discoloration can occur in infants and children when on short-term tetracycline therapy, I doubt pediatricians would agree with this recommendation. Tetracycline drugs should not be used for patients below eight years of age unless other drugs are not likely to be effective or are contraindicated, a point Dr. Burack himself makes on page 328 of *The New Handbook*.
- 3. Following a discussion of "therapeutically unnecessary and unnecessarily expensive" fixed combination drugs, he recommends paregoric for diarrhea instead of Lomotil[®]. *The AMA Drug Evaluations* classifies paregoric as an irrational mixture (page 583). Because it is cheap, a fixed combination is not made therapeutically rational. Lomotil[®] also has a negligible addiction potential compared to paregoric.
- 4. "It is strange indeed that the influential members of our profession have not made it crystal clear to medical students that the aims of doctors and the aims of drug manufacturers are antithetic and irreconcilable." Based on my own experience in working for a major drug firm, such a sweeping generality is poorly founded. We have dedicated, multi-disciplined teams in our firm driving hard to bring potent

new clinical agents to the medical profession for the prevention and treatment of significant human illnesses. This is an aim shared by medicine and the industry.

The problem of providing all citizens with adequate, rational, and reasonably priced health care, including drugs, is complex and needs solution. I do not feel, however, that Dr. Burack's casual rhetoric in his recent article helps to solve this important problem.

CHARLES C. LEIGHTON '64
To the Editor:

Congratulations on your excellent May/June issue, in which a discussion of contemporary quackery was begun by Dr. Young, completed by Dr. Burack, and illustrated in your advertising pages. To top it off, you report the construction at the Harvard Center for Community Health and Medical Care of another of the "palaces of the toadstool millionaires."

Seriously, do you really believe that a large photograph of a worried man, a symbolic view out a window at sunset or sunrise, and such phrases as "the negative power of undue anxiety" and "a new outlook on chronic pain" are legitimate elements of the debate on therapeutics? It is no doubt too much to expect physicians to know Plato's Gorgias and Aristotle's Rhetoric: the refinements, and even the gross outlines of rational argumentation have been oblitcrated in an age of technological robotism. But is it too much to hope for a few physician-editors who might dimly appreciate that appeals to emotions and motives, which do not give any information about the product, are not medically useful or defensible elements of prescription drug advertising?

The grounds for therapeutic disasters and farces like those mentioned by Dr. Burack are prepared in the advertising pages of our distinguished medical journals. There the intellectual fibers are softened and manured with idle fantasies; and there, scientific respectability is conferred upon the fundamental principle of quackery: that the choice of

therapy is to be arrived at by comtemplating a wished-for result, rather than by reasoning from a knowledge of drug properties.

Apparently the weakness for quackery is not confined to the lay public. "They were all so courteous to me," one of today's physicians might say of drug company representatives, as the lady said of the cancer quacks. "I am going to stay with them no matter what else I do. The last 'expert' I talked to was so abrupt with me. He said I was prescribing expensive rubbish, and the way he said it hurt my feelings. Now these people said, 'Look on the bright side and enjoy life all you can.' The 'expert' took all the joy out of practising medicine. Now with these people, I feel safe and happy."

As Hurry Harry said, there's a considerable of human nature in mankind generally, after all.

CHRISTOPHER D. THRON '59

To the Editor:

I read with dismay the glib harrangue concerning Rx drugs in the May/June HMAB. Therein there may be some truth, but the tabloid fashion in which it was written is certainly not in keeping with the dignity of the *Bulletin*.

Combination drugs are condemned and the triple sulfas advocated; Azogantrisin® is compared to a pure sulfa; Achrostatin® is described as equivalent to tetracycline plus aspirin rather than tetracycline plus Nystatin® (in reality the comparison should have been made to Achrocidin®); a narcotic, codeine, with its side effects, is preferred to Darvon Compound-65®. Indeed, Atarax® and Vistaril® are identical and manufactured by the same parent company, but the dosage forms differ. And there is abundant proof that ampicillin does have proven advantages over tetracyclines, e.g., the treatment of meningitis.

It seems personal prejudices far outweigh reason in this article and the extrapolations are likewise biased.

RAYMOND E. JANKOWICH '55

An Open Letter to the (new) Drug Detail Man:

This letter will acknowledge your recent arrival in our community of physicians, and will explain, in all courtesy, why you will not be welcome in my office.

I make this advance explanation both in the interest of good relations, and in the saving of valuable professional time for both of us.

Let me assure you that there is no possibility of our transacting any business of any kind together. I am immune to any kind of advertising pitch you can be induced to make. I have no intention of wheedling "free" drugs from you for my patients, for members of my family, or for myself. I do not solicit from you, nor will I accept, support for any kind of educational forum, however well conceived; nor any "free" tickets to cocktail parties; nor any other kind of gratuity. I don't want any "free" medical bags from you, nor golf bags, scribble pads, desk calendars, barometers - nor any other kind of goods or chattels of whatever kind or description.

I feel that acceptance of any such gifts or handouts would be a betrayal of my personal ethics and of my patients — akin to a member of a city planning council accepting gifts or favors from a construction firm.

You are entitled to some explanation for the sentiments above expressed.

It isn't that I distrust only pharmaceutical advertising as slanted, profit motivated half truths or blatant falsehoods: I, in fact, distrust all advertising, and the advertising industry itself can be credited with this diploma of my post graduate education.

But my purpose in addressing you is not just to castigate advertising, baneful though its influence be on American life as a whole. I am concerned, in this transmission, with pharmaceuticals, because as a practising physician I must be. The following conclusions represent a 34-year experience with the pharmaceu-

tical industry, some of it as a pharmaceutical investigator.

The pharmaccutical houses try to substitute their slick brochures and fast talking salesmen for genuine medical education. The conscientious physician goes to genuine scientific sources — "Current Therapy" of the New England Journal of Medicine and The Medical Letter, as examples.

The pharmaceutical houses try to promote irrational combinations (c.g. Fiorinal®), hoping to attract lazy physicians.

The pharmaceutical houses keep pushing expensive remedies for non-diseases (tension, low metabolism, stress, the pace of modern life — ad nauseum).

The pharmaceutical houses try to induce physicians to prescribe on a mode or fad basis: "Try Our New Muscle Rclaxant" (last year's product, so highly touted, isn't selling so good this year!).

Some of the pharmaceutical houses are hard put to explain the quantitative difference between their total barbiturate and amphetamine production and the amount that appears in legitimate American medicine. The excess appears to enter Mexico or other countries and to reenter the street scene in the United States via some kind of underground (or air transport) mechanism.

The pharmaceutical houses put the burden of your salary, the slick brochures, the cocktail parties — at a total cost of 109 dollars per year — on the person least able to bear it: the sick (and therefore unemployed) patient. We should all be indignant about these promotional costs even if equally borne by the entire population; it is intolerable that they should be borne by the sick.

I am, of course, a generic prescriber. Some of my patients are going to be taking daily doses of drugs for time periods of five, ten, perhaps 50 years. I must see to it that they do not pay from twice to ten to 15 times more for a trade name drug than they would for a generic one. This does not mean that I take on sublime faith the statement of the

generic provider that his product is effective, safe, comes in accurate weights, and is protected from environmental deterioration. I also do not trust the federal Pure Food and Drug Administration, nor any fallible human resource. But least of all do I trust corporations whose only motivation to stay in business is to turn the largest possible profit.

The pharmaceutical industry will not be in the least perturbed by the publication of this letter. They know the habits of physicians too well to believe that our profession will have a sudden change of heart; stop being snowed by fast talking salesmen; start learning some genuine pharmacology the hard way; stop prescribing sloppy drug combinations, the constituents of which they could not pass a second year examination on; and eschew all the "free" blandishments offered them.

This letter, then, will accomplish only one objective, Mr. Drug Detail Man, and that is to keep you out of my office. If it does that, it won't have been in vain.

SEDGWICK MEAD '38

Science vs. History

To the Editor:

In your issue of May/June, you have a very nice article entitled, "A Psychiatric Glance at Malaysia." The title suggested to me that it might well have been worthwhile to have taken "a psychiatric glance" at Dr. James H. Young and his article. It is obvious that Dr. Young is a competent historian and his article points out the difficulties of science modifying human beings and their aberrant behavior.

Unfortunately, Dr. Young does not seem to have paid too much attention to the fields of science that are concerned with human behavior. He makes a token allusion to medical psychology and sociology but on the whole, acts as though these were not appropriate sciences to deal with the problems which he outlines. There would be many who would disagree with his position and feel that while the behavior of humans is often aberrant it has some roots and can be understood in the light of definitive findings.

It, however, seemed easier for Dr. Young to call disturbed individuals "misfits" which, in keeping with the rest of his article, is hardly a scientific term. At least in America, those sciences that concern themselves with human beings deserve a better place in history than Dr. Young has accorded them.

HENRY H. WORK, JR. '37

"Diary of Dissent" Descended Upon

To the Editor:

Congratulations on the hot news reported in "Overview" in the May/ June issue of the HMAB.

It is good for the Alumni to know that in a special session of the Harvard Medical School Faculty, called by the Dean of the School, the Faculty has voted to dissociate itself from the war policies of the United States. It is even more interesting that the Medical Area Political Action Group — a subcommittee of the Faculty I presume, voted to provide medical financial assistance for the Viet Cong and is soliciting Alumni support.

The Alumni Association will undoubtedly welcome further reports from the Faculty and the Medical Area Political Action Group. It is hoped that the Dean will call another special meeting of the Faculty to provide guidance to the Alumni in the coming elections. No doubt Gus Hall, Jane Fonda, and Ramsey Clark will be high on the list for important government positions, even though Mr. McGovern may seem rather conservative.

Keep the Alumni informed. Undoubtedly they will be influenced not only to consider financial support for the revolutionary govern-

ment of South Vietnam, but also for the Harvard Medical School.

J. ENGLEBERT DUNPHY '33

To the Editor:

The "Diary of Dissent" in a recent issue of the *Alumni Bulletin makes* sad reading indeed. It is beyond my comprehension how so many intelligent persons can so completely reject reality.

Oh VERITAS — why have they smothered you?

LEMOYNE SNYDER '23

To the Editor:

A recent issue of the Alumni Bulletin affords generous space to a "Diary of Dissent" in which the views on the war in Vietnam of the presidents of Harvard, Yale, Princeton, Dartmouth (God save the mark!) and other institutions, as well as those of Dean Ebert and certain student groups, are set forth. There is no suggestion made that these views are not unanimously held by all thinking people or that any arguments can possibly be made in support of the course which our country has taken in these many years of travail in Southeast Asia. Does anyone really seriously believe that the U.S. government has seriously intended to "kill, starve, and maim millions of Asian men, women, and children?" There is mention of "American imperialism" in Southeast Asia. What evidence is there that this government has the slightest intention of annexing any part of this beleaguered area or of exploiting its oil (if it exists) or other resources for the benefit of the American people?

On the other hand, is there not at least some evidence that we signed a treaty with the members of the SEATO alliance promising that, on request, we would come to the aid of any member threatened by an enemy invasion. Were we not asked to furnish such aid by the government of South Vietnam? And was it an act of diabolical imperialism that we honored that pledge to help resist the invaders? Oh, but the South

Vietnamese have no real interest in political freedom. They are not opposed to the government of North Vietnam and have no fear of totalitarian communism. Then why do they invariably flee southward as the North Vietnamese advance? Why do they not welcome the army from the north and join their ranks as they were supposed to do in the Tet offensive of a few years ago? We are constantly told that the Thieu government is utterly corrupt and hated by its people. Some of this may well be true. This simple and largely untutored people have had the experience of representative government for very few years indeed. We have had 200 years to perfect this form of government. Yet, is there any state government of the 50 that is wholly free from taint of graft and corruption? And what recent federal administration has not had to gloss over at least one minor scandal?

War is horror. It is a temporary breakdown of civilization. Yet, when all efforts at peaceful solution have failed, is there sometimes no other alternative? Let us suppose that an invading army has conquered all of Canada. It is led by a modern Hitler complete with an incinerator corps to dispose of undesirable captives. Yesterday this army took Detroit. Today it is softening up Chicago with bombs and artillery barrage. What would you do about it? Would you forbid all resistance or would you fight back? But fighting means shooting and sooner or later one of your shells might well hit an innocent civilian or even a little child. And if your resistance was at all effective it might well be that by accident one day, your gunnery would demolish a hospital or a school. What would you do about it?

Men believe what they want to believe and then collect evidence to support the position they have already taken. How rarely does a man allow his reason to get in the way of his prejudices!

To those opposed to the tenor of this note, let me offer at once, sound reasons why it should be suppressed: (1) I am old and increasingly arteriosclerotic, (2) I am a square and a conservative. Should any opinions of a square or a conservative receive any consideration? (3) I am a veteran of both World Wars and so perhaps may be deemed a warmonger.

It is a rare debate indeed in which the angels are all ranged on one side and all the fiends on the other. You certainly have the right to plant the Quadrangle with crosses, to urge marches on the State House and the Pentagon, to wave the Vietcong flag and even to make speeches "in aid and comfort of the enemy." But in your zeal for dissent, can you not reserve a few lines for the antidissenters? I quote Oliver Cromwell: "I beseech you by the bowels of Christ that you consider whether you may not be wrong?"

ALLEN G. BRAILEY '28

Call for Revolution in Health Care

To the Editor:

Throughout the world, the time is right for movements of the "common people" in opposition to established institutions. This is certainly true in our country, and we can see it very clearly with respect to health care and medical institutions. It is high time that the consumers of health care manifested their concern about their own health and diseases and the manner in which health care is delivered to them. It is most certainly high time that we of the medical profession not only be aware of the nceds of the consumers that we serve, but also do something positive and dramatic to change outdated modes of health care delivery.

The American society as a whole needs to place more emphasis on health education, starting in the pre-school years and continuing throughout life. This education would involve not only simplified anatomy and physiology and sex education in the public schools, but also knowledge about the importance of preventive health services throughout life. Public and private

schools offer one possible vehicle for this type of mass education effort. We are beginning to see the good fruits of education done by communities, utilizing community organizations and media. These efforts probably will be best done by focusing on specific health problems, such as hypertension or streptococcal disease and rheumatic fever. Developing the right to know about our health and disease will carry this country a long way forward.

Health professionals will need to receive education about, by, and from consumers very early in the educational process. This would include courses in community medicine and the needs of the consumers in the first year of medical school, for example. These programs would be available for doctors, nurses, physician assistants, etc. Part of the practical experience of all health professionals should be in either neighborhood health centers or free clinics where the needs and problems of the consumers can be encountered first hand.

One other aspect of transforming health care and meeting consumer health needs involves the social-political arena. I think there is no question that this country needs some form of nationalized prepaid health insurance. I think it is also obvious that multi-specialty group practices, with the use of so called para-professionals, will become the order of the day.

A summary, then, of my view-point would be that we do need a near-revolution in health education and health delivery systems. I would hope that much of the leadership in this revolution would come from the health profession itself. I would encourage you to continue publishing articles on this topic, performing part of this leadership role.

THOMAS C. WASHBURN '57

Oops!

To the Editor:

It was with utter dismay that I

read in a recent issue of the *Bulletin* the tragic distortion of facts presented by Dr. Hafferstam in his brief biographical sketch dealing with the late Q. K. Dalgleish. Seldom, if ever, in your erudite periodical, have such preposterous errors been perpetrated on its readership. Although it is not my desire to be pejorative, there are several supposed facts in this article that literally scream for rebuttal.

In the first place, Dalgleish actually graduated from HMS in the late twenties, so he would have been out of school by the time young Hafferstam matriculated. Following an internship and residency in Baltimore (where he ascertained the clinical material was more abundant) Dalgleish went into proctology, but soon decided that he could not face up to clinical practice. It was not until then that he decided to become a writer.

The remainder of the story, of course, is history, but apparently not to such amateur scholars as Hafferstam. Unfortunately for Dalgleish, he attempted to break into the literary world the easy way. He forged a biography of President Franklin Pierce which the *Atlantic Monthly* was about to publish, but by a strange twist of fate never made public, that august Boston institution discovered the hoax early one morning just as the press run was about to start.

Furthermore, despite Hafferstam's vague description of the event, the circumstances surrounding the death of Dalgleish are well documented. When the *Atlantic* threatened to strike him forever from its subscription list, there was only one thing any honorable Boston gentleman of that era could do. He climbed to the top of the Customs House Tower and jumped. He landed in an MDC garbage truck and died of Ignominy.

THOMAS W. SALTONSTY, SR. (RETIRED)

Dr. Saltonsty's letter was forwarded to Dr. Hafferstam, who replies.

To the Editor:

It was certainly a great pleasure

to be in touch, once again with the revered Dr. Saltonsty, Sr. whose grandson was two classes ahead of me in medical school. Time has a way of blending factual data, historical material, and something that passes for memory into what might otherwise be taken for literary history.

Most of the apparent conflict between my version of Dalgleish's career and that of Dr. Saltonsty can be easily resolved. It is a well established fact among all students of modern American literary history that the individual described by Dr. Saltonsty was not Dalgleish, but rather was a Dr. Campbell S. Zweigeld who did graduate from HMS several years before Dalgleish and I appeared there. It is also true that early in his career Zweigeld did make material investigations in Baltimore before returning here.

The learned Dr. Saltonsty's recount of Zweigeld's attempted literary hoax, however, is at variance with the one customarily accepted by most students of American literature of that period. According to my notes, Zweigeld's spurious biography of Pierce was offered not to the Atlantic but to the Youths Companion, a Boston publication now long out of existence. A young Roxbury Latin student who worked nights cleaning out the offices of that periodical observed that there was a striking resemblance between Zweigeld's Life of Pierce, whom the lad immediately recognized as a well-known alcoholic, with that of Rutherford B. Hayes, an esteemed teetotaler. A note on the editor's desk alerted him, and the magazine was saved from a most embarrassing sequel.

It might be noted that the boy in the story was forthwith promoted from mop to broom, and eventually became chief custodian of the venerable structure on Commonwealth Avenue.

The remainder of Dr. Saltonsty's critique bears a sufficient resemblance to the truth to require no elaborate or detailed riposte.

HAFFERSTAM.



